LIBRARY OF CONGRESS
JUL 11 1904
Periodical

The American Artisan
AND HARDWARE RECORD

Vol. 48—No. 2. CHICAGO, JULY 9, 1904. $2.00 Per Year.

BOLTS

NUTS, WASHERS, CLIP TIES, FELLOE PLATES, CORNER IRONS AND
CARRIAGE FORGINGS
Write for our general Catalogue
COLUMBUS BOLT WORKS, Columbus, O.

PURE ASPHALT ROOFING
NEVER DRIES OUT OR CRACKS
Our Tarred Ready Roofing, Slaters' Felt, Building Paper, Roofing Cements, Paints, Etc.
WRITE US FOR PRICES
J. L. PERKINS & CO., 235 Lake Street, CHICAGO

LEAKY ROOFS
Are expensive to repair, and if neglected will cause a considerable amount of trouble. If a roof has some small leak or break, have it fixed at once or it will give trouble in the near future. In order to stop these leaks it is necessary to obtain
Elastic Oil Cement—American Seal
brand—and apply it to any leak, small or large. It never hardens. Prices for "American Seal" Elastic Oil Roofing Cement and Roof Paint are reasonable and we feel sure that if you write for them they will interest you.
Agencies: J. L PERKINS & CO., 235 Lake St. CHICAGO, ILL.
STOCKHOFF SUPPLY CO., 107 N. Main St., ST. LOUIS, Mo.

Tinners Find Employment
By advertising and using
THE POWERS AUTOMATIC CHIMNEY TOPS
They make chimneys draw, give Tinners employment making stocks, and give the dealers profit. Sold by Hardware Jobbers and Dealers
Made only by
POWERS BROS.
Streator, - Ill.
This cut free to dealers.

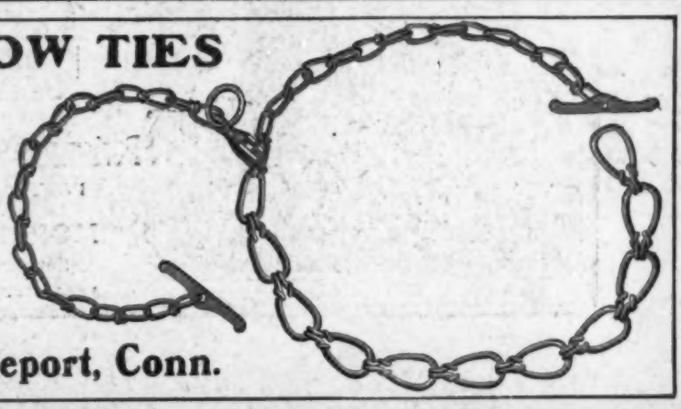
NOTICE.
We have exceptional facilities for handling American products: Hardware, Sanitary, Heating and Ventilating Goods. Branches in England and continent. References furnished.
ADDRESS
EXHIBIT & TRADING CO.
Main Office, 155 Duke St.
LIVERPOOL, - ENGLAND

The Atlas Bolt & Screw Co.
CLEVELAND, O.
Stove Bolts, Rivets, Rods
And Kindred Articles
Catalogue and Prices on application

Crying to do business without advertising is like winking at a girl in the dark; you know what you are doing but nobody else does.

Black Diamond Files and Rasps
PERFECT—ALWAYS
TWELVE MEDALS AWARDED
TRADE MARK
AT INTERNATIONAL EXPOSITIONS
G. & H. BARNETT CO.
Black Diamond File Works, PHILADELPHIA

BROWN WELDLESS COW TIES
Twice as strong as welded chain.
A sample (full length) delivered for one cent.
Any Retail Dealer sending postal card request with name of Jobber secures sample prepaid.
Sole Manufacturers
The Bridgeport Chain Co., Bridgeport, Conn.



"Wit consists in knowing the resemblance of things which differ and the difference of things which look alike."

The Etna Furnace

Is the Best Proportioned Furnace Ever Built

But there are a lot of furnaces which look like it. You may need the help of a tape measure to fully appreciate its merits, before you have seen it in use, but when it is in use its superiority is apparent to everyone.

In its construction Grate Surface and Radiation are correctly balanced.

Its fire travel is not equaled by any furnace having the same grate area.

Its weight and its shape suggest the durability that its history proves.

These are the qualities which make it furnish

Heat That's Cheap.

The Etna is not in the "lowest bidder" class, but its price is reasonable and that is all anybody expects. In the furnace business the "lowest prices" are usually the cause of the "highest kicking."

"Play it safe"—handle the Etna Furnace. Its use brings prompt settlements and a few kind words.

The Best Proportioned Return Flue Furnace Ever Built.

Firepots	Casings	Fire Travel	Height	Weight
18"	36"	11 ft. 8"	47"	751 lbs.
21"	40"	12 ft. 7"	48"	975 lbs.
24"	46"	13 ft. 8"	52"	1219 lbs.
27"	52"	15 ft. 2"	52"	1649 lbs.
30"	60"	17 ft. 3"	55"	2080 lbs.

Firepots are straight — Weights are scale weights — (Steel Radiator)

Pittsburgh Stove & Range Co.

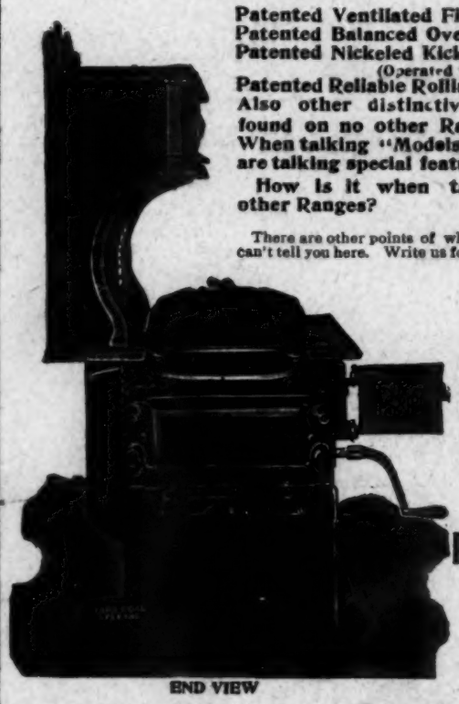
PITTSBURGH, PA.

Model Steel Range

With Our New Pouch Feed

Patented Ventilated Fire Box,
Patented Balanced Oven Door
Patented Nickeled Kicker
(Operated with Foot),
Patented Reliable Rolling Damper,
Also other distinctive features found on no other Ranges.
When talking "Models" you are talking special features.
How is it when talking other Ranges?

There are other points of which we can't tell you here. Write us for more



END VIEW

THE
Portsmouth Stove & Range Co.
PORTSMOUTH, OHIO.

MORLEY BROS.,
Saginaw, Michigan,
Wholesale Agents for Michigan.

THE EASY LINE TO SELL

See the new EVER-LASTING FIRE POT in Moore's Air-Tight Heater for 1904

JOLIET STOVE WORKS, JOLIET, ILLINOIS

73

OUR LINE OF STEEL RANGES AND HEATERS

581. 18 Champion Monitor Reservoir and High Closet.

Has been greatly improved during the present season, and you will be delighted with the finish and style of our new goods.

Our new Hot Blast Oak is a beauty and the price is right. Send for sample. If you are not pleased with it, it will belong to us. Catalogue sent by request.

Monitor Hot Blast Oak No. 147

THE WM. RESOR & CO., CINCINNATI, OHIO

WHITE'S STOVES & RANGES THE FUEL SAVERS

"Now stir the fire, and close the shutters fast."

If the old poet had lived in the time of the

WHITE'S BEACON

The Rooms Heated Are Always Cozy And Comfortable

A Real Pleasure To Enjoy This Even Temperature

He would not have had to bother with stirring the fire. The Beacon keeps a steady heat. Give it the fuel and it will do the rest—no poking, no stirring. Warms the floor, burns the smoke and gas, as well as the coal. Gets right down to business and does its work right.

SEND FOR CATALOGUE AND PRICES

THOMAS WHITE STOVE CO.

QUINCY ILLINOIS

RED CROSS PRINCESS STEEL RANGE

Greatly Improved.

Largely Redressed.

Finer Nickel Ornamentation Than Ever.

New Thermometric Indicator.

It is built of the finest obtainable planished steel, with double plates interlined with asbestos.

Plunge damper in the top, and combination wheel register and damper in the pipe.

Linings of brick or iron as may be desired when hard or soft coal is used.

The grates are Duplex or Dockash, as may be preferred, and draw out in front instead of longitudinally, under our exclusive patents.

Cast broiling door of ample dimensions.

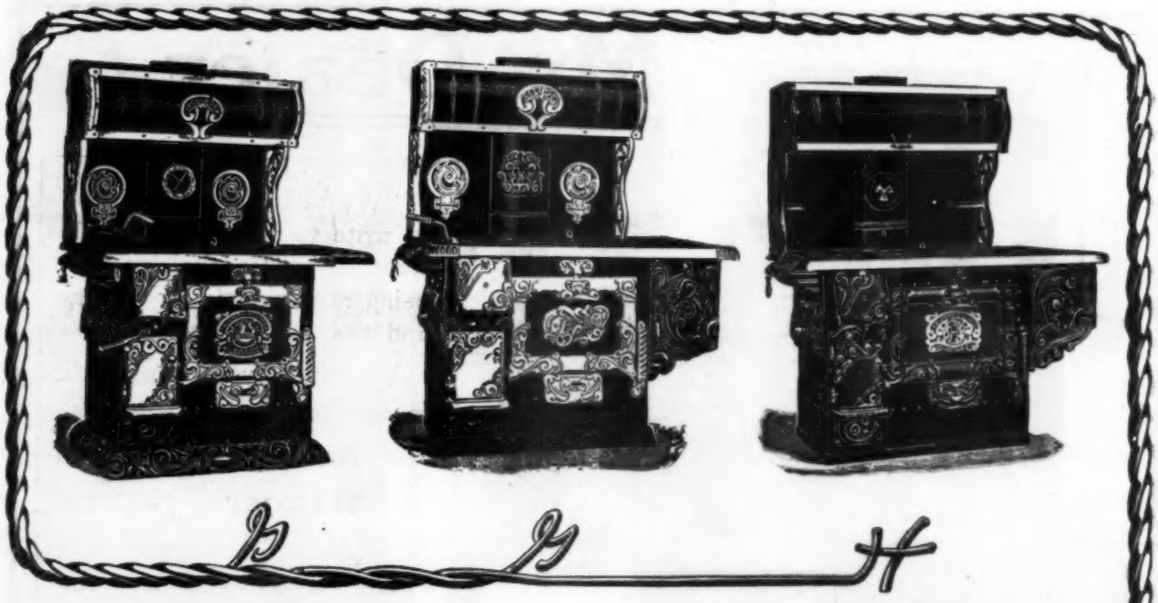
The ash pan is very large and deep.

Extreme bottom, or cast iron base section, is an exceptionally desirable feature. Through being loose and detached from the range until set up in the kitchen, a convenient dimension is secured which permits its passage through comparatively narrow doors.

The reservoir casings are of cast iron and rust proof.

THE CO-OPERATIVE FOUNDRY CO., ROCHESTER, NEW YORK

JOHN KONTNY, Western Agent, 65-67 N. Desplaines St., Chicago



Economy
Durability
Reliability

A THREE-STRANDED STEEL LINE

Write for Illustrated and Descriptive Booklet

The Eclipse Stove Co.

Mansfield, Ohio

CLERMONT AIR TIGHT HOT BLAST

Made in four sizes, 414, 416, 418 and 420 for soft coal, slack, coke, hard coal or wood. Air tight jointless ash box. A great fuel saver carrying fire for 48 hours. **THE CLERMONT AIR TIGHT HOT BLAST FIRE BOWL, HOT BLAST RING,** is moulded in one piece. Narrow perpendicular slots are cast in the Anti-buckling ring, the advantage of which will be quickly understood when you consider the fact that it is impossible to determine just how much coal will be put into the fire bowl, so that it makes no difference whether much or little coal is added, the hot air is always being admitted evenly on all sides.

GEM CITY STOVE CO., Dayton, Ohio

Mr. Dealer

"We take our pen in hand to write to you and we don't want to excuse ourselves for being after you in particular, and the trade in general.

We want your assistance in distributing the

Reliance and Winner

lines of Steel Ranges.

Get a sample on your floors, and they will do the rest."

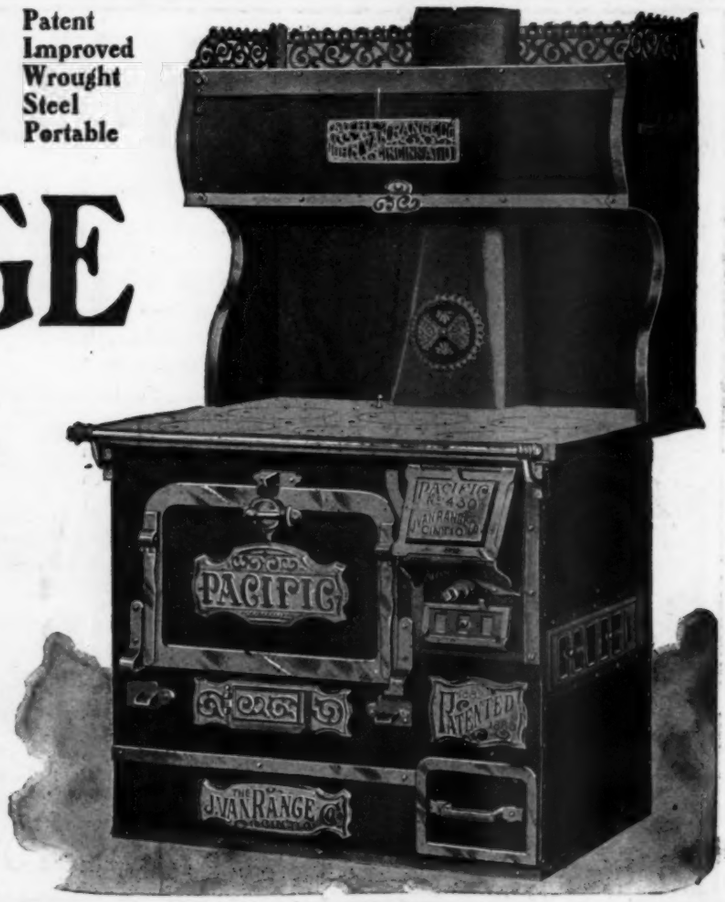
Ashland Steel Range & Manufacturing Co.

ASHLAND, OHIO.

Agents: WORMNEST STOVE & RANGE CO., Grand Rapids, Mich.

VAN'S RANGE

Patent Improved Wrought Steel Portable



For Hotels, Restaurants, Public Institutions, Boarding Houses, and Private Families.

All kinds of Hotel Implements for Culinary Purposes.

Manufactured and for sale by

THE JOHN VAN RANGE CO.

419 Elm and 410, 412, 414 and 416 Home Streets

CINCINNATI :: OHIO

GREEN HOT AIR FURNACES

EVERGREEN FURNACES

MANUFACTURED BY
GREEN FOUNDRY & FURNACE WORKS
Des Moines, Iowa.

RADIUM STEEL RANGES

Three Distinct Styles and Three Sizes of Each Style

The Interchangeable Features on these Ranges enable the dealer to supply the wants of his customers, though he may carry but a limited stock.

Extended Fire Box to take in 25-inch wood.

The Broiler is an exclusive feature.

Large Pouch Feed on the Standard Range.

Air-tight Screw Draft Regulator.

Removable End Shelf on all Square Top Ranges.

All Ranges can be set upon ornamental cast base.

In every respect this line will be found to be the most improved, complete, up-to-date, convenient and most profitable for dealers to handle.

The Auer Register & Manufacturing Co.
Toledo, Ohio

An EYE to EFFECT
should lead you to illustrate your ads.

Our Eye Catching Cuts are Cheap.

Our Eye Catching Cuts are Popular.

Our Eye Catching Cuts are Clear Cut.

Specially adapted for Hardware Men.

Great Variety to Pick From

At Lowest Prices Ever Made in These Cuts.

Bright, Original, Spicy.

Send for Circular.

Daniel Stern,
69 Dearborn St
Chicago.

Any dealer looking for the best, most attractive, up-to-date and complete line of Ranges in America, should at once secure the sale of the

HUB

SMITH & ANTHONY COMPANY, 48-54 UNION STREET, BOSTON, MASS.

Manufacturers of Cooking and Heating Apparatus of Every Style and Description.

STAR SHOVELS
SPADES AND SCOOPS
WARRANTED
STAR SHOVEL & RANGE CO.
VINCENNES, IND.

Vincennes, - Indiana.

Wait! Watch!!

It will pay you to read our advertisement in next week's issue of THE AMERICAN ARTISAN.

Toledo Stove & Range Co.

TOLEDO, OHIO.

Catalog Houses

If they Bother Look into This

$23.50

No. 76-18 Merit Gold Coin Polished Steel Range, for coal or wood; duplex grate; reservoir and high closet; six No. 8 griddles; full nickeled. We are making a special price of $23.50 on this blue steel range, **Cash to Accompany Order.**

CHICAGO STOVE WORKS

STOVE MAKERS TO THE TRADE

Blue Island Ave. and 22nd St., CHICAGO

PRIZE STEEL RANGES

Foster

Makes a range that is without a peer. Everything about this new and improved costs no more than ordinary ranges. Order a sample and be convinced. *Send for printed matter.*

The Foster Stove Co.

IRONTON, OHIO

BOOKS BY MAIL

THE Publisher of the American Artisan will take pleasure in supplying books of whatever character, at catalogue prices, prepaid by mail, to any address, on receipt of price. The following are lines specially represented:

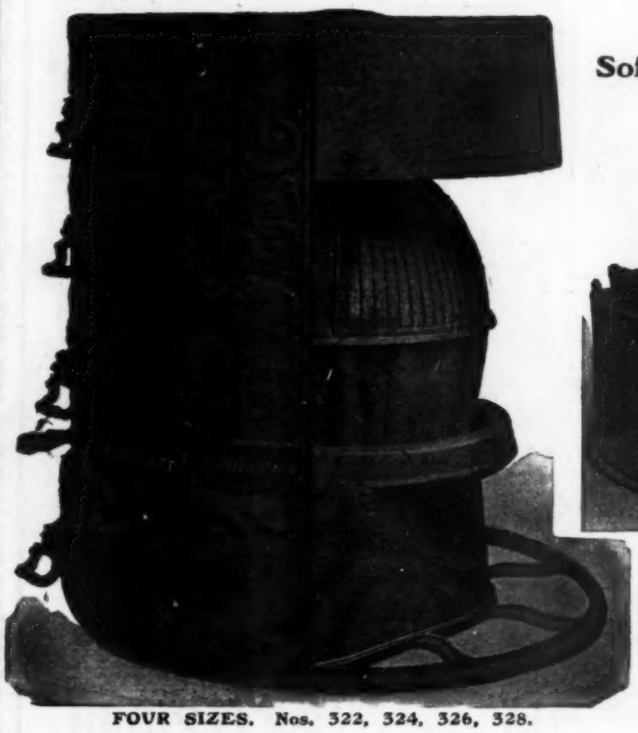
SHEET METAL WORKING. THE FOUNDRY. THE WORKSHOP. HEATING AND VENTILATING. PLUMBING AND DRAINAGE. BICYCLE REPAIRING. THE STORE AND OFFICE.

DANIEL STERN,

PUBLISHER and BOOKSELLER
69 DEARBORN ST., CHICAGO

THE RADIANT HOME FORCE DRAFT FURNACE

Original Air Blast Fire Pot with Force Draft Ring



FOUR SIZES. Nos. 322, 324, 326, 328.

Burns every Kind and Quality of

Soft Coal, Coke and Lignite.

PERFECT COMBUSTION.

Soft Coal Burned as Cleanly as Hard Coal.

LARGE ONE-PIECE RADIATOR
LARGE DOUBLE FEED DOORS

Most intense heat with cheapest grade of fuel.

FIRE POT GUARANTEED FIVE YEARS.

Only Correct Method for Burning All Kinds of Soft Coal.

THREE SIZES. Nos. 418, 420, 422.

A LEADER

High Grade, Low Price, Powerful Heater

For Soft Coal, Hard Coal, Coke, Lignite and Wood.

AIR BLAST FIRE POT. LARGE HEAVY RADIATOR.
EXTRA LARGE FEED DOOR.

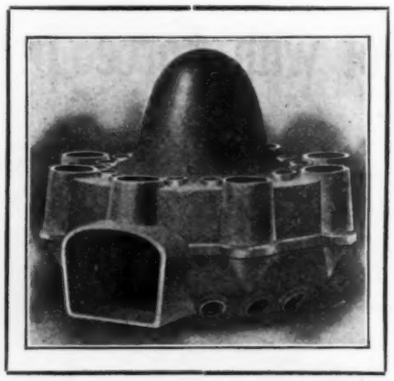
Can be sold at Retail at less than wholesale price of other makes.

FIRE POT GUARANTEED FIVE YEARS.

GERMER STOVE COMPANY

Western Branch:
231-247 NEWBERRY AVE.
CHICAGO, ILL.

Main Offices and Foundries:
Erie, Pa.



The "Thatcher" Body

Comes in one piece.
Goes up in one piece.

That s why "Thatcher" Heaters never leak gas. Putting a furnace body together properly—is a business by itself—Without specially trained mechanics, specially designed machinery, no one can be sure of making a furnace tight. Most furnace makers send you the body all apart—They save the time and money it costs you to fit the castings together. Sometimes the castings happen to fit—More times they don't—When they don't you can't make a tight job no matter how much time you waste trying. Maybe a "Ready Made" furnace made by a company that is making an aggressive fight to get its agents more business would just "fit" you. *Is it not worth a postal to find out? Send it now.*

Thatcher Furnace Co.

Works: Newark, N. J. 240 Water Street, NEW YORK.

MONARCH

AIR BLAST FURNACES

FOR SOFT COAL

NIAGARA

FURNACES

FOR HARD COAL AND COKE

We Also Make—

REGISTERS,
ASH PIT DOORS,
FURNACE PIPE
and FITTINGS,
CORNER MANGERS,
VENTILATION
GRATES,
MAIL BOXES,
ETC., ETC.

Our Catalog is Interesting.

The Forest City Foundry & Mfg. Co.

CLEVELAND, O.

DURING THE FORTY-SEVEN YEARS

THAT WE'VE BEEN IN BUSINESS

in not one single instance has the quality of the **MUELLER** Furnace ever been sacrificed in an endeavor to cheapen the manufacturing cost.

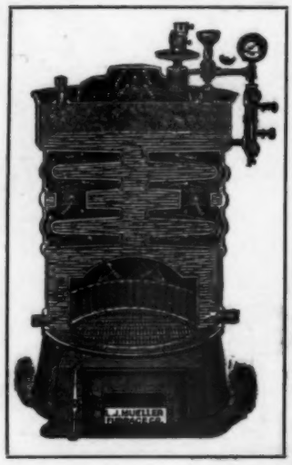
The **Mueller** Furnace can always be depended upon to be the best in principle, the best in efficiency, the best in workmanship and finish—and above all the best in durability.

The **Mueller** is best for the wide-awake furnaceman, too. If you sell **Mueller** furnaces in your town you have the exclusive agency—and a furnace that is sure to please your customers and make money for you.

Just as the **Mueller** Furnace is best for the furnaceman—so is the **Mueller** Boiler best for the Boilerman!

Ask us about the agency for either—or both!

Also write about Floor and Wall Registers.



L. J. MUELLER FURNACE CO.

191 Reed Street MILWAUKEE, WIS.

We have a

SURPRISE

in **NATURAL GAS HEATERS**

DON'T BUY UNTIL YOU SEE THE INDEPENDENT LINE
WRITE US

Independent Register Company

CLEVELAND, OHIO

Emperor Furnaces

FOR WOOD.

Simple, Safe, Durable. Economical in Fuel.

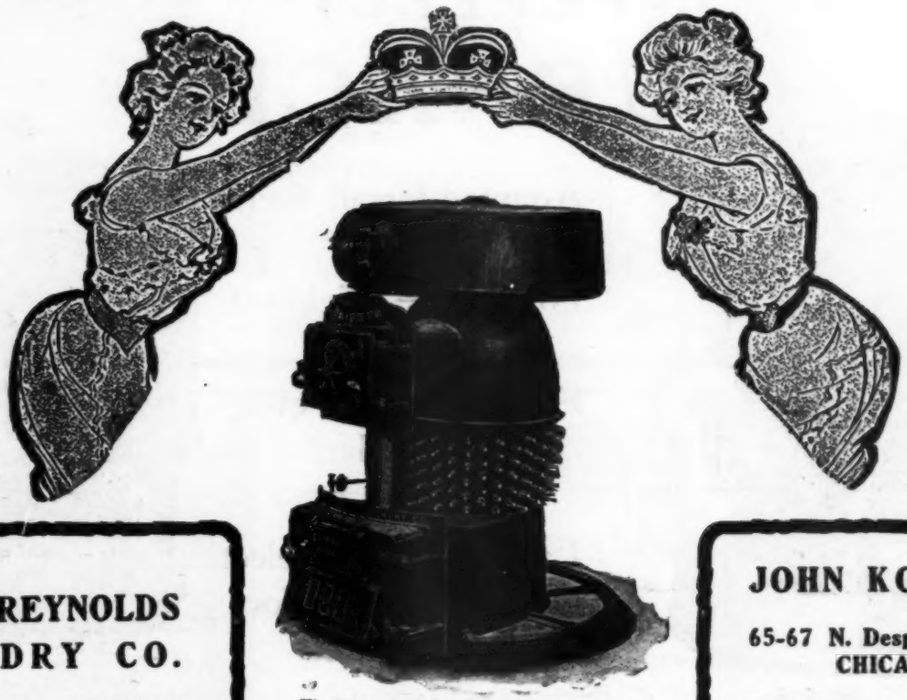
The Best and Cheapest Line of Wood Furnaces . . .
Furnished for either Brick or Galvanized Iron Casing.

SEND FOR CATALOGUE.

Bergstrom Bros. Co.

NEENAH, WIS.

TRIUMPH FURNACES WEAR THE CROWN



The Triumph all Cast Furnaces. Five Sizes. Hard or Soft Coal. Portable or Brick Set.

CRAIG-REYNOLDS FOUNDRY CO.

DAYTON, OHIO

JOHN KONTNY

65-67 N. Desplaines St., CHICAGO

WESTERN AGENT

If you wish the best Known

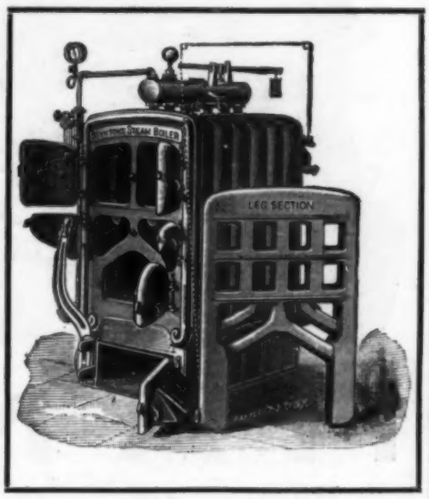
Hot Air Furnaces

Steam and Hot Water Heaters

and the largest stock and varieties to select from, send for **THE BOYNTON FURNACE CO'S.** CATALOGUE, which is complete. There may be others, but the genuine

BOYNTON HEATERS

are sure to be right.



The **BOYNTON FURNACE CO.**

147-149 Lake St., CHICAGO **207-209 Water St., NEW YORK**

Richardson & Boynton Co's.

"PERFECT"
Trade Mark.

FURNACES

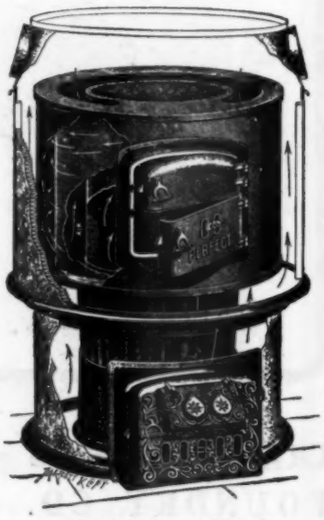
Soft Coal

Adapted for all fuels.

Portable — Brick-set.

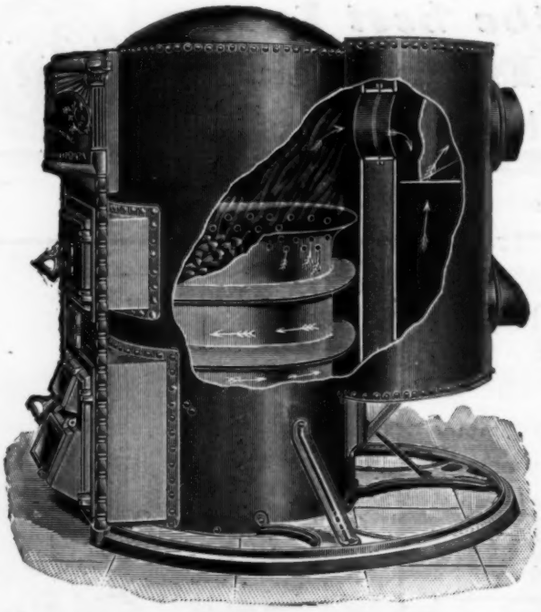
First class in every particular.

Large variety to select from—suitable for any market.



Hard Coal and Wood

234 Water St., NEW YORK **84 Lake St., CHICAGO, ILL.**



SAY!!.

Do you know there is money handling the all steel

WEIR

Gas and Soot Consuming *Furnace?* Let us tell you about it.

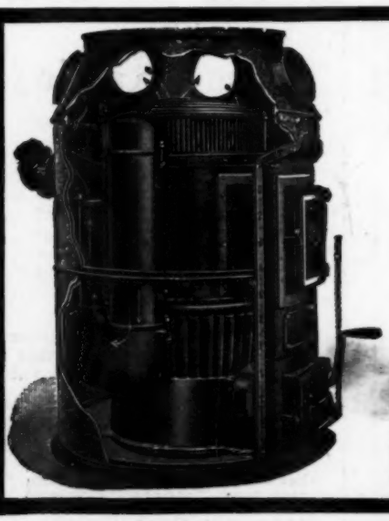
Made by The

MEYER FURNACE CO., Peoria, Ill.

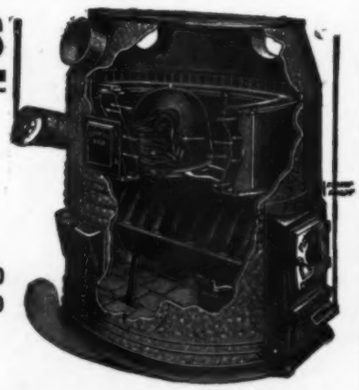
HANDY

Furnace pipe is the safest made, easiest to put up and cheapest made.

F. MEYER & BRO. CO., Peoria, Ill.



Floral City Furnaces



Are strictly up-to-date, old patterns have been relegated to the scrap heap, old methods discarded, but they are in no sense experiments.

EVERY FURNACE IS TIME TRIED AND HAS BEEN THOROUGHLY TESTED

in a climate where the temperature often falls to 40° and 50° below zero. Write for catalogue.

Monroe Furnace & Foundry Co., Monroe, Mich.

Height to top of casing 58 inches.

The MAJESTIC

All Cast Combination Furnace

PORTABLE OR BRICK SET.

The combination feature of this Furnace is the Horizontal fire box for burning 24 in. wood which acts as a combustion chamber, for burning hard or soft coal, when wood grates are removed.

Note the horizontal and down draft Radiators making a fire travel of 22 feet.

Write for further description and price.

The Chappell Furnace Co.
MORENCI MICHIGAN

FLATIRON FURNACE

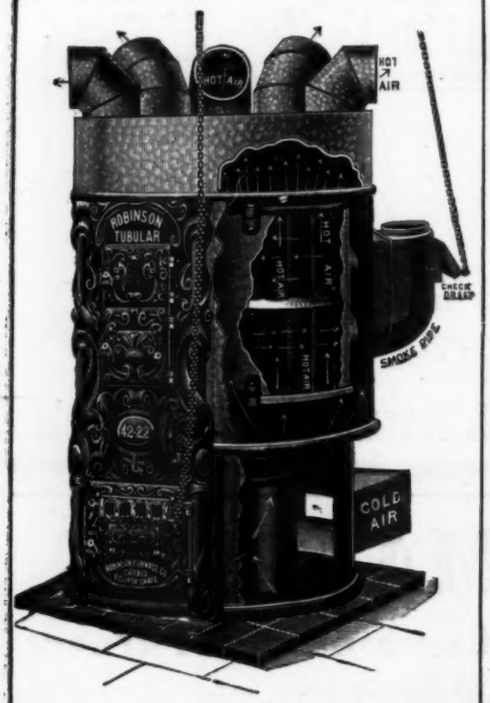
with it's Self-Cleaning, Marvelous Power, Large Radiating Surface, Gas and Smoke-Tight Joints, Long Smoke Travel, is the

FUTURE FURNACE

THE MISKIMEN FURNACE CO. LOGANSPORT, INDIANA.

L. B. HOOKER, Sturgis, Mich., writes: "Your paper is a grand success. I believe no tinner or plumber should do without it. I try to keep up with the times and the only way is to find out what other shops are doing and the way to do that is to take THE AMERICAN ARTISAN."

SUPPLIED WITH ECLIPSE GRATES



Sectional View Showing Wrought Boiler Tubes in Radiator. A Full Revertible Flue Furnace.

FOR HARD COAL OR WOOD

The Robinson Tubular Furnaces

are constructed on principles that have been tested and proven correct, and with one aim in view, i. e., *to give the greatest amount of heat from the smallest amount of fuel.* It will thoroughly warm a house with a reasonable amount of fuel and give satisfaction to the user.

Write for Catalogue.

Robinson Furnace Co.

105 Lake St., CHICAGO

The House-Warming Manual

Is beyond all doubt the best book published on practical house heating.

It contains the plans and essays on heating a house submitted in THE AMERICAN ARTISAN House Warming Competition for $300.00 prizes, and is in fact

An Encyclopedia of the Most Modern and Improved Practical Methods of Heating a House by Steam, Hot Water and Warm Air.

A Leading Western Newspaper says:

"The volume is a well-bound and artistically printed and illustrated volume of nearly 300 pages, and contains some masterly essays on steam heating, hot water heating and warm air heating. Nearly every prominent authority in this field is quoted, and an application of principles and improvements suggested covers all technical details in a simplified and practical way. House plans and diagrams accompany the subject matter, which deals specifically with radiation, combustion, ventilation, prices, estimates, and the best and latest methods for placing, connecting and utilizing the apparatus adopted."

Price, Only $3.50 Per Copy.

For sale by all booksellers or the Publisher

DANIEL STERN,

69 Dearborn Street, CHICAGO

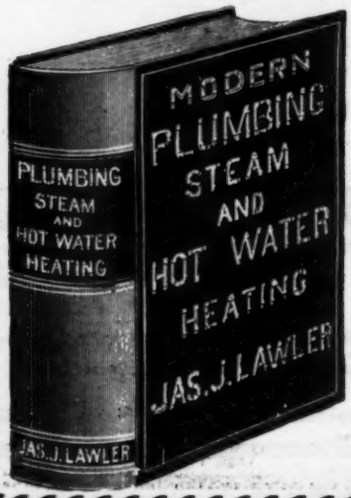
HERO FURNACES ARE THE BEST FOR A COLD CLIMATE

WRITE FOR CATALOG

CHAS. SMITH CO., : 101 Lake St., Chicago, Ill.

Modern Sanitary Plumbing.

Steam and Hot Water Heating.



An Encyclopedia of Practical Plumbing.

By JAMES J. LAWLER.

400 pages, large octavo, size 6x9 inches. Price, $5.00.

A reviewer in speaking of this book says:

"This is a book of an intensely practical character. It contains hundreds of drawings and plans and has already taken its place as a leading practical authority in its chosen field."

"Whether the mechanic is looking for information about hot water systems for greenhouses under pressure or is desirous of learning the capacity of the hydraulic ram; whether he is anxious to learn how to make the smoke and peppermint test or wants to protect his well from cesspool soakage; whether he desires a receipt for plumber's soil or is anxious for tips on the location of hot water boilers below the waterback; whether he would delve into the mysteries of exhaust steam heating or would gather points on the box waste connections; whether his work is tapping radiator mains or making repairs in occupied houses; in any of the above or a thousand other cases that will arise in the course of a year's work at plumbing or steam fitting this book will be found to contain a ready key to the technical questions at issue."

For Sale by DANIEL STERN,

69 Dearborn St., - - CHICAGO.

HEIGHT OVER ALL 63 INCHES.

Stanton Seamless Warm Air Furnace

If you want the best, The Stanton will appeal to your judgment.

Seamless and proof against leakage of smoke, gas and dust from the firebox to the warm air pipes.

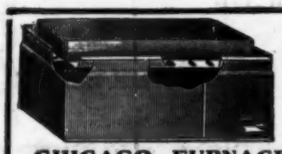
Lined with fire-clay blocks. **Portable** Cased or **Brick Set.** Nothing like it.

Burns soft coal slack. Sells on its merits. It will assist you in building up a profitable business.

WRITE FOR CATALOGUE.

The Stanton Heater Company

MARTINS FERRY, OHIO



FURNACES, PIPE, ELBOWS AND FITTINGS

CHICAGO FURNACE SUPPLY COMPANY, - - - CHICAGO.

ONCE TRIED, ALWAYS USED.

THE BAR-KEEPER'S "FRIEND"

FOR Scouring, Cleaning and Polishing

BAR FIXTURES, DRAIN BOARDS AND ALL Tin, Zinc, Brass, Copper, Nickel and all Kitchen and Plated Utensils. Glass, Wood, Marble, Porcelain, Etc.

GEORGE WM. HOFFMAN, Sole Manufacturer and Proprietor, 295 East Washington St., Indianapolis.

"THE BAR-KEEPERS' FRIEND."

BARKEEPER'S FRIEND

Marble, Glass, Nickel, Brass, Copper, Tin and German Silver can all be cleaned and polished with it easier than with anything else.

Price 25c per lb.

Let us send you a FREE SAMPLE

GEO. WM. HOFFMAN
295 E. Washington St.
INDIANAPOLIS. - IND.

FOR SALE BY JOBBING TRADE

Sales Agent—J. C. KIMMEL, 2314 East 15th St., Kansas City, Mo.

MONCRIEF

WARM AIR FURNACE.

Specialties:
- All Cast Iron.
- Moncrief Duplex Grate.
- Large Radiating Surface.
- Double Fire Pot.
- Large Grate Surface.
- Top Return Flue.
- Simplicity, Durability, Economy.
- Cleanliness in Use.

HENRY & SCHEIBLE CO.

6-8-10 Long St. Cleveland, O.

Persistent Advertising

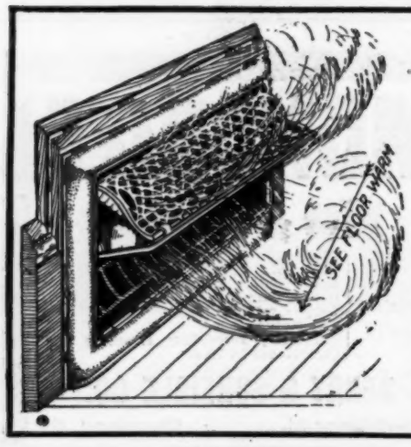
One who watches carefully the pages of general advertising mediums is struck by two things; the persistency with which those advertisers who are recognized as successful maintain their advertising week after week, month after month, and year after year; they never seem to abate their effort, and apparently the volume of their business increases steadily. The other thing noticeable is the large number of advertisers who thrust their announcements above the surface for a little while and then sink into oblivion. They either had not merit as a basis for their claims or they did not possess the skill to steer their enterprise successfully, or else they lacked the nerve to put forth proper effort.—*Advertising Experience.*

GILT EDGE HARD COAL FURNACE

has an enviable reputation which it has earned just as men earn reputations by doing their work faithfully and conscientiously and better than the other fellow. It is more economical, more durable and more easily operated than other furnaces.

SEND FOR CATALOGUE.

R. J. SCHWAB & SONS CO., MILWAUKEE, WIS.

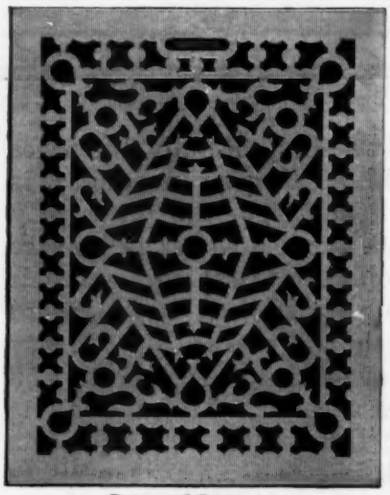


WARMTH ON THE FLOOR

The only Floor Warm Register manufactured.

C. H. FOSTER
3403 Bell Ave., St. Louis, Mo.

MAKER LARGEST LINE OF WALL REGISTERS



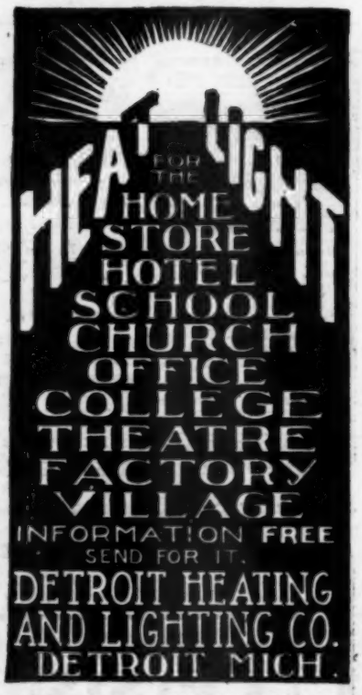
Diamond Design

Send Us Your Contract

for your **season's supply** and you can rest assured of **good goods** and **prompt service.**

Catalogue No. 2 Side Wall and Floor Registers, Ventilators and Ash Pit Doors.

Stowell Mfg. & Foundry Co.
South Milwaukee, Wis.



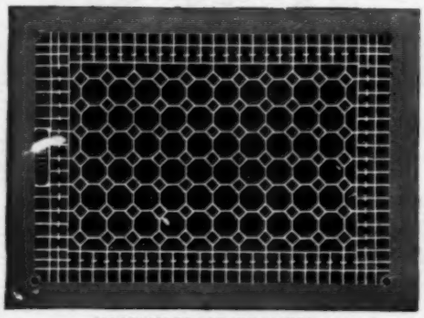
CUT THIS OUT

To the Publishers
The American Artisan and Hardware Record
69 Dearborn Street, CHICAGO

Please send us THE AMERICAN ARTISAN each week for three months. At the end of that time we will remit Two Dollars for one year's subscription, or 50 cents in case we decide to discontinue.

NAME .....
ADDRESS .....
TOWN .....
STATE .....

"REGISTERS OF QUALITY"



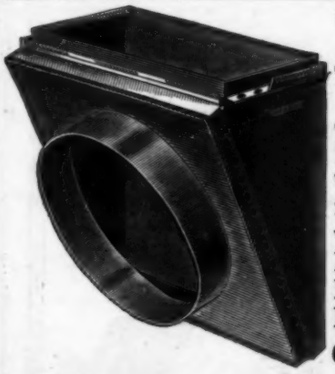
MOORISH FLOOR REGISTER.

THE FERROSTEEL COMPANY,

CLEVELAND, OHIO
Offer two lines for 1904.

1. *The time tried and reliable line of Ferrosteel goods noted for accurate mechanism and perfect finish.*
2. *Our new Modified Steel Register combining an absolutely rigid top with an invulnerable bottom.*

Genuine Moorish or Plain Lattice Tops furnished with either line. All our goods are labeled. None others are genuine. Catalogues, prices and Special Circular illustrating our SIDE WALL REGISTERS on application.

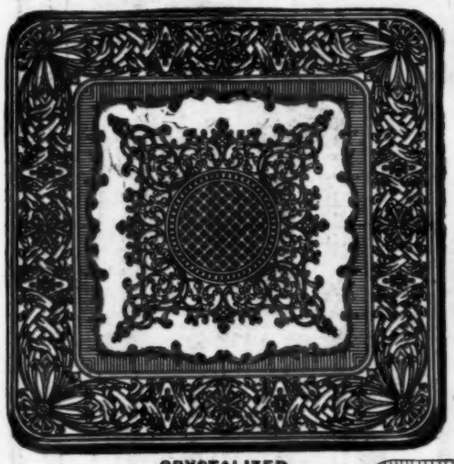


We Make a Complete Line

of Boots, Stack Heads and Fittings, both Double and Single, for Tuttle & Bailey, Ferrosteel and Hart & Cooley Special Side Wall Registers, and will be glad to mail printed matter and quote prices thereon, as well as on Hard and Soft Coal Furnaces, Furnace Pipe, Registers, Nested Stove Pipe, Stove Pipe Elbows and Furnace Supplies.

Our Goods and Prices are Right.

THE EXCELSIOR STEEL FURNACE CO., 38 W. Monroe St., Chicago



CRYSTALIZED

WABASH STOVE BOARDS

The Best Made

ALUMINUM

A Complete Line of Superior Goods.

Ask for Wabash Boards when ordering from your jobber.

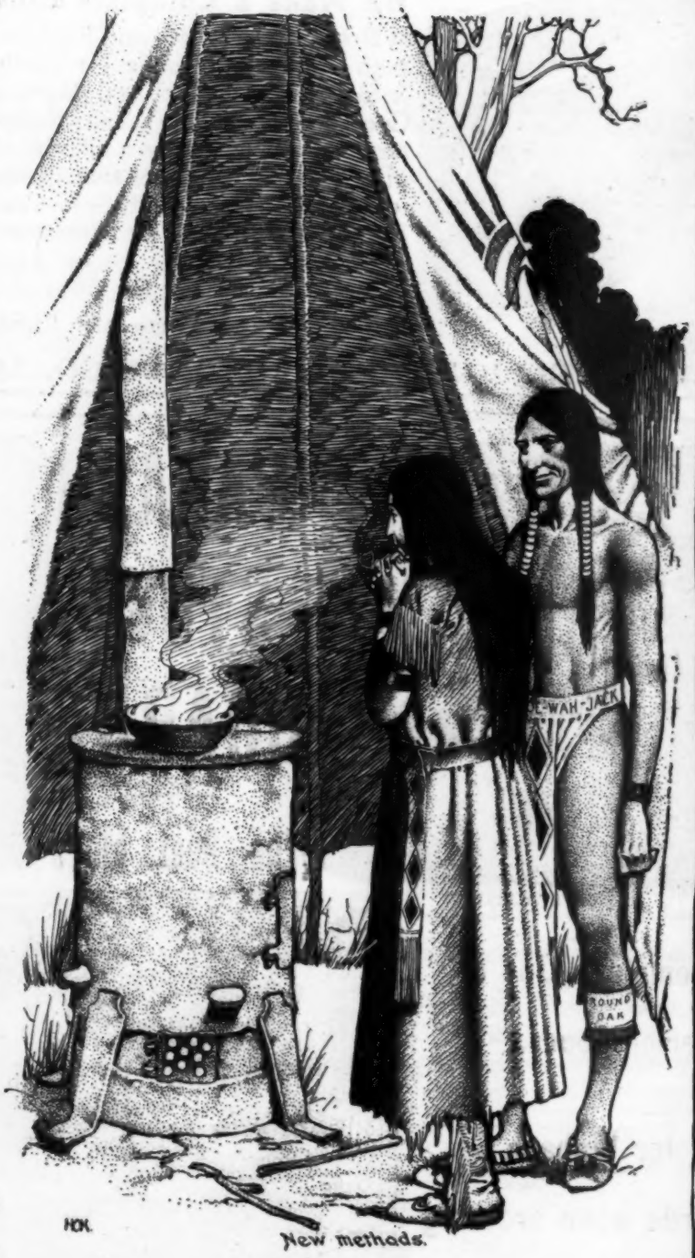
ORIENTAL ENAMELED

The Wabash Screen Door Co.

Minneapolis Chicago
Memphis

ROUND OAK
STANDARD of AMERICA

The Round Oak Chief
Steel Range
has proven to be
one of the quickest
working steel ranges
ever turned out,
and in economy
of fuel a wonder.
Every one started
has delighted the user
and sold more.
It is a first-class range.
It will suit your
customers
and the price is *right.*
You simply cannot
afford to
pass the Chief by.
Send for cuts
and information
about it, and take
a glance at the
"hit" of the year
in the steel-range line.
It will pay you, sure!



Estate of

P. D. BECKWITH

Fred E. Lee, Manager

Dowagiac Mich.

MAKERS OF GOOD GOODS ONLY

ESTABLISHED 1880.

Representative of the Stove, Tin, Hardware, Heating and Ventilating Interests.

PUBLISHED EVERY SATURDAY.

TERMS OF SUBSCRIPTION IN THE UNITED STATES, THEIR POSSESSIONS, AND CANADA, (Invariably in advance): ONE YEAR, POSTAGE PAID, $2.00.
IN FOREIGN COUNTRIES EXCEPT CANADA, ONE YEAR, POSTAGE PAID, $4.00.
Address all Letters, communications and remittances to

DANIEL STERN, PUBLISHER AND PROPRIETOR,
69 DEARBORN STREET, CHICAGO, ILL.

Entered at the Chicago Post Office as Second Class Matter.
THIS PAPER IS A MEMBER OF THE CHICAGO TRADE PRESS ASSOCIATION.

CHICAGO, JULY 9, 1904.

THE Memphis Journal of Commerce believes that superior advertising is the fulcrum of catalogue house trade-getting. From a recent editorial we make these two parallels:

THE CATALOGUE HOUSE.

These catalogues are revised and sent out once a year, and the circulation aggregates to each house fully a million copies. This year's editions are larger and better printed, and will cover a larger and richer territory than last year. They are received everywhere by the most prosperous farmers and country storekeepers and dwellers in almost every hamlet, town and city, who are constantly on the lookout for bargains, and read every line and inspect every picture descriptive of goods adapted to general family use. These catalogues are passed around among every member of the home and in turn loaned out in a friendly manner to the best neighbors.

THE RETAIL MERCHANT.

Many merchants think they are doing wonders if they insert a hurriedly written advertisement in two town papers, both of which often live off the patronage that would scarcely justify the sustenance of a single good one. Is there any wonder why the large department store and mail order house, with the assistance of the rural mail deliveries, gets the fattest worm?

The retail merchant who is now succeeding is he who keeps posted and pushes his business by strengthening his own forces, and not waiting for his own business to push him out of existence.

DOMESTIC trade movements covering the first five months of the current year are reported in the Monthly Summary of Internal Commerce for May by the Department of Commerce and Labor, through its Bureau of Statistics. The figures of representative movements indicate that there has, with proper exceptions, been an evident decrease in the consuming demands of the country. On the other hand some leading commercial activities continue to maintain an increase in the volume of business, in comparison with the corresponding periods of 1903. This is the case with livestock receipts for which reports were received from leading distributing centers of the West. The five markets of Chicago, Kansas City, Omaha, St. Louis and St. Joseph report combined arrivals of 13,950,227 head, against 12,578,270 head in 1903 and 12,503,637 head in 1902.

Receipts of grain at twelve primary markets totaled 28,201,485 bushels, in contrast with 33,822,802 bushels in 1903. Receipts of wheat at eight markets from the beginning of the crop year to May 30 were 207,834,152 bushels, as compared with 228,519,561 bushels in 1902-3.

MANUFACTURERS and manufacturers' materials form an unusually important factor in the figures of our foreign commerce during the month of May and, indeed, in those of the entire fiscal year. For the first time in the history of our foreign trade the value of manufactures exported during the month of May exceeded that of agricultural products. The total value of manufactures exported in May, 1904, was $38,894,561, against $37,891,838, the value of agricultural products exported. Ordinarily the value of agricultural exports is more than twice as great as that of manufactures exported.

There has been but one complete fiscal year in the history of our export trade in which the total exports of manufactures were even half as great as the total exports of agricultural products. In 1900 the value of manufactures exported was $433,851,756 and of agricultural products $835,858,123, so that in that particular year the value of manufactures exported was a little more than one-half that of agricultural products exported, but never before had manufactures equaled or exceeded the value of agricultural products in our figures of domestic exports.

This preponderance of manufactures in the exports does not by any means hold good for the entire fiscal year, the total of manufactures exported during the eleven months ending with May, 1904, being but little more than half the total of agricultural exports, but in the single month of May manufactures exported actually exceeded agricultural products exported by over $7,000,000.

Exotics.

SOME PLANTS thrive in their native jungle and others under all sorts and conditions of climate, soil, etc. Others wither and droop when removed from their own bleak hillside. The American manufacturer seems to be one of those hardy specimens that flourish in any old place, as Consul-General Mason of Berlin in a recent report tells of the success of American manufacturers in Germany.

As part of the general industrial development of Germany there is a feature of growing importance concerning which little seems to be known or realized in this country, and that is the productive capacity of manufacturing plants established in that country by Americans themselves, equipped with American machinery and operated under American direction and methods. Probably no European country has so many of these offshoots from American manufacturing industries as Germany, which grants to such alien enterprises practically the same privileges and requirements

granted and imposed upon native firms and companies. Legal obligations to labor, police regulations as to solid and fireproof construction, and other legal conditions make factory management here more difficult and troublesome than at home, but the American managers comply successfully with all such obligations and, being on the same footing as their native competitors in similar lines, they have a definite advantage for the European trade over their own or rival firms and companies in the United States. This advantage embraces several elements—the saving of ocean freight and import duties, the employment of cheaper labor, and the fact of being able to compete as local manufacturers for municipal and government contracts that would not be accorded to foreign bidders. Being in the immediate presence of their market they are able to study and adapt their products to the exact tastes and requirements of purchasers, a point which the home office in the United States is somewhat apt to neglect. The net result is that there is built up here within the frontiers of European states a vast group of manufacturing establishments of the most modern type, based to a large extent upon local capital, but enjoying all the advantages of American experience, machinery and operative skill, for the managers and foremen of these factories are picked men from the factories in the United States. Their workmen are mainly natives and here is thus set up a series of special industrial schools, where men and boys from the best class of local operatives are trained by American experts in the subtlest details of their craft. And when, as happened during the depression of 1901-2, a large electrical manufacturing establishment of this class at Berlin got into a situation where expenses had to be reduced an American industrial doctor was sent for to diagnose the case to the last detail and prescribe the proper remedy. There are thus to-day, among others, within the limits of Berlin an outgrowth of the great machine-tool works at Hamilton, Ohio, three large electrical manufacturing companies closely allied to similar organizations in the United States, and one of which is a direct offshoot from the parent factory in Brooklyn and is perhaps the principal producer of small electric motors and paper insulators for the whole of Germany.

An American match factory in Baden practically dominates that branch of industry in southern and western Germany. The Luxfer prismatic glass and American radiators are made in Germany by branch works of the home companies, and an American factory at Hanover supplies pneumatic brakes for the whole Prussian railway system. Another important combination is that which has been recently concluded between the American General Electric Company and the "Allgemeine" and Union companies, of Berlin, to unite in the possession and working of the Curtis and Riedler-Stumpf patents for steam turbines and turbo-dynamos. They have mapped out in combination their respective spheres of influence, and their operations will cover exclusively, so far as their patents are concerned, the whole of Europe and America. These are but examples of the American factories and combinations abroad which must in future operate powerfully to restrict certain classes of exports from the United States.

Anonymity.

In another column of this paper will be found a communication from John Freeman, formerly of Freeman, Delamater & Co., Detroit, Mich., in which he states that no attention should be paid to anonymous communications.

If the gentleman's viewpoint were an editorial one, we would indorse his views, as no paper is, in our opinion, justified in printing a communication concerning whose authorship it has no inkling; but from the viewpoint of an interested reader merely, his criticism is not only unwarranted, but is inconsistent as well.

Of course, now that Mr. Freeman, formerly of Freeman, Delamater & Co., has retired from business, his views concerning different matters pertaining to the hardware trade are probably more freely shared with the trade and the public than when he was in harness. Why not? He has no customers to lose and no competitors to embroil. If he irritates a manufacturer he need fear no reprisals in the shape of having a valuable agency taken away from him.

Mr. Freeman has enjoyed a long and honorable business career and we are glad that he is now enjoying what collegians are wont to style *otium cum dig*; but however calmly or obstreperously he may enter his denial, the fact remains that the retired looker-on is far freer in his opinions than the active participant.

Mr. Freeman's animadversions against anonymity are stamped with glaring inconsistency.

In the days when he was a leader in the world of hardware his influence was directed toward the maintenance of closed sessions on the part of organizations with which he was identified.

Why was Mr. Freeman in favor of barring the press from the deliberations of the bodies of which he was one of the directors if not that members might feel free to use language they did not care to sponsor in the glare of trade publicity?

The saw has it that what is sauce for the goose is sauce for the gander, but Chef Freeman apparently serves his convention speech goose with cream sauce and his press communication gander with tobasco sauce.

We do not know or care, for that matter, what rules other editors follow in the matter, but the writer of this article always has and always will use a certain editorial discretion in the matter of publishing the names of his correspondents. For example, on the same page on which Mr. Freeman's letter appears is a communication which starts in: "A prominent eastern manufacturer writes." The author of this letter is an official of the American Hardware Manufacturers' Association, a gentleman that Mr. Freeman certainly knows by reputation and, we believe, must have been personally acquainted with in the days of his strenuous knowledge of the hardware field. The letter in question came to our editorial desk under no seal of secrecy and with no insistence on the author's name appearing, and we would have felt perfectly justified in publishing the writer's name. However, as in the course of this letter he made the statement that his firm only sold $200 or $300 worth of goods to catalogue houses in the course of a year and at prices

made by jobbers to retailers, we concluded, perhaps wisely, perhaps unwisely, perhaps in accordance with the wishes of the writer of the letter in question and perhaps directly thwarting them, to publish the letter in question anonymously. Our reason was that we feared some of this man's competitors might use a lying half-truth against him and say, "So-and-So says flatfootedly in THE AMERICAN ARTISAN that he sells to catalogue houses."

This gentleman's letter is as strong, save for the great weight that his signature always carries, as though his name appeared, and its omission, if a fault, rests on editorial shoulders and editorial shoulders alone.

Trade paper experience brings one into contact with hundreds of men who desire certain ideas promulgated, but do not care for the credit of fathering them. We are not ashamed to candidly admit that some of the editorials that appeared in THE AMERICAN ARTISAN on the line of fighting catalogue house competition some years ago which attracted marked attention at the time were suggested to the editor by a traveling man who was heart and soul with the retail trade in their fight against this evil, but who expressly stipulated that his ideas were to appear as if emanating from the editorial pen, if in accord with the trend of ideas that were wont to splutter from the aforesaid pen, in order that his personality might be entirely eliminated from the matter.

This man's reason for this self-abnegation was that the firm he represented sold heavily to catalogue houses and the latter would unquestionably take umbrage at the bitter arraignment of some of their hollow pretenses if they became aware of the author's identity.

Trade is different from politics. The business man looks for results rather than for glory. He enters a trade association in order that results may be worked out for the common benefit of all rather than for self-glorification.

Consequently you generally find him working for an idea rather than pushing himself as the originator of an idea. Sometimes a business man prefers to work without drawing fire on himself as author of a scheme and sometimes he prefers to identify himself with a trade movement on every possible occasion.

We fail to see any force in Mr. Freeman's strictures.

RANDOM SKETCHES.

BY SIDNEY ARNOLD.

THE ALBUQUERQUE, New Mex., Journal of June 26th tells this tale of woe, which hardware dealers will appreciate:

"The Santa Fe storekeeper is now wondering what to do with a carload of nails which arrived yesterday from Richmond, Cal., after having passed through a little wreck down the valley. The car contained 150 kegs which had been so badly smashed up that nails of all sizes and descriptions were muddled in a hopeless confusion.

"With over a million nails that are obliged to be assorted, the head of the department is now engaged in a little arithmetic, endeavoring to figure out how long it will take a Mexican to sort one million nails at two dollars a day and what his nails cost him when the job has been completed. He is now wondering whether it would not be policy to advertise for bids and let a contract for the work. Any one who wants to sort a million nails should apply to the storekeeper's office at once."

* * *

THE falcon eye of the scissors editor of Detroit Trade recently spied this succulent item in a Grand Rapids paper: "Sixty-five pounds of chicken sandwiches, two clothes baskets full of choice pies and other culinary products, an innumerable number of kegs of amber fluid and an interurban car full of traveling salesmen and their friends got together at Jenison park yesterday and held a picnic." In connection with this appetizing item I would state I am sorry I was not there, as I like pie and chicken sandwiches.

* * *

UP in Escanaba, Mich., says our esteemed contemporary, Trade of Detroit, there is a firm known as "The Provisioner," of which Mr. T. J. Martin is proprietor, and to Mr. Martin must be given the credit for making war on the trading stamp imposition in a manner which seems well calculated to teach the people of his community of the fallacy of the idea that they are receiving something for nothing, when they go in for the collection of trading stamps.

About a week ago Mr. Martin had printed a large number of hand bills about 7½ by 11 inches and these were distributed throughout the territory in which "The Provisioner" does business. The circular is too good to be cut up in any way and is consequently reproduced in full herewith. It offers a good suggestion to the retailer who wants to do some seasonable advertising and incidentally show his customers why there is no money in collecting stamps. The circular is as follows:

"OUR REASON WHY WE DO NOT GIVE TRADING STAMPS.

If figures tell the truth,

If trading stamps cost the merchant ½ cent each, 50c per hundred,

If he does $100.00 per day business it costs him $5.00.

If twenty merchants in Escanaba do the same it costs $100.00
This would mean for six days' business.... 600.00
This would mean for twenty-six days' business, one month 2,600.00
This would mean for twelve months, one year, would cost 31,200.00

Now, ladies and gentlemen, this goes to the Trading Stamp. The merchant pays this to the Trading Stamp Company for their little coupon. He has to get it back somewhere, somebody must pay this, we never heard of any concern getting rich giving their goods away. $31,200.00 would do this. Provide for 65 families for one year, allowing each family $40.00 per month or $480 for each family per year.

Above is a bird's-eye view of our idea of the Trading Stamp, and consequently we do not donate to the stamp king but we will continue to do all we can to supply our customers with good reliable goods at as low prices as is possible to meet our legitimate expenses and assure the public good service."

News Siftings

The Kentucky Stove Co., Frankfort, Ky., are a new concern capitalized at $15,000.

The Southern Stove Works, Chattanooga, Tenn., will shortly erect a $30,000 addition.

The Fairfax Stove & Hardware Co. are a new Fairfax, Va., concern capitalized at $10,000.

Boyce H. Bennett, O. B. Strauss, T. B. Paxton, Jr., J. D. Meeker and E. L. Stricker are the incorporators of the Bennett Stove Co., Cincinnati, O.

The A. & J. Stove Co., Gadsden, Ala., will shortly expend $10,000 in improvements. Among other things they will erect two additions, 40x80 feet and 25x40 feet respectively.

H. V. Finkelstein, I. R. Meyers and Joseph A. Well are the incorporators of the H. V. Finkelstein Machinery & Iron Co., Peoria, Ill., capitalized at $50,000, to deal in machinery and metals.

On June 11th, last, more or less damage was done owing to a blaze starting among the dust screens in the mounting department of the Rock Island Stove Co.'s plant at Rock Island, Ill.

Frank S. Moore is president, Jeptha Crouch is vice president, Wm. H. Vawter is secretary and treasurer and J. B. Kendall is superintendent of the Lafayette Stove Foundry Co., Lafayette, Ind.

Josiah B. Borden, of the well-known stove jobbing firm of F. M. Borden & Bro., Philadelphia, has been on a western trip and while in the city favored THE AMERICAN ARTISAN office with a call.

The Eclipse Stove Co., Mansfield, O., the well-known manufacturers of the Triumph Eclipse steel ranges, are felicitously styling same their three-stranded steel line. The three strands in question being economy, durability and reliability.

The Chicago Stove Works, Blue Island Ave. and 22nd St., Chicago, the stove makers to the trade, are making the special price of $23.50 on their No. 76-18 Merit Gold Coin polished steel range for coal or wood. This range has duplex grate, reservoir and high closet, six No. 8 griddles, full nickeled.

The Portsmouth Stove & Range Co., Portsmouth, O., for whom Morley Bros., Saginaw, Mich., are wholesale agents, are making quite a drive on their Model steel range with their new pouch feed. Among other features are their patent ventilated fire box, patent balanced oven door, patent nickeled kicker and patent reliable rolling damper.

The Thos. White Stove Co., Quincy, Ill., are making a drive on their popular White's Beacon, the fire keeper which has fire-keeping facilities. They claim for it that it is unique, original, durable, economical, comfortable, and that it consumes smoke, gas and everything. They will be pleased to send full particulars to the trade on application.

Wm. Resor & Co., Cincinnati, O., have greatly improved their line of steel ranges and heaters for the present season and the trade will be delighted with the fancy and style of the new Monitors. The Champion Monitor steel ranges and the Monitor hot blast oaks are a couple of styles on which this firm are meeting with an unusually heavy demand.

The trade will learn with deep regret of the death of Charles C. Young, which took place on June 30, 1904. Mr. Young was an old-time salesman and had been associated with the Co-Operative Foundry Co. of Rochester, N. Y., for 29 years. His frank, clean-handed and reliable methods made him respected wherever he went, while his genial and friendly personality made him a great many friends.

A traveling man who visits the Ohio stove trade writes that indications are for a very fair year, especially in agricultural districts, as the crops look better than ever; the wheat looks immense and will be of best quality, and as long as the farmer prospers we need not fear of any great depression. In all probabilities there will be a little exodus from cites to the country during harvest, where work will be plentiful.

The Estate of P. D. Beckwith, Dowagiac, Mich., sends us a little leaflet calling attention to the Beckwith hot blast, which has the famous Round Oak air-tight bottom and swing hearth; the coal fixture is 2 inches larger than corresponding numbers in other makes, it is claimed. These hot blasts are mounted with Wood's 14 gauge double refined cleaned and cold rolled iron; an ash pail, shovel, shaker and cinder hook go with each stove.

The St. Louis Electrotype Foundry Co. have just moved into a magnificent new building at 214 and 216 Pine St., St. Louis. The new structure is 35x47 feet. There is light on three sides, there being fourteen windows on each floor. The building is equipped with every modern convenience, and up-to-date contrivance to facilitate the rapidly increasing business of the St. Louis Electrotype Foundry. They also do a large business in pattern letters for the iron founders.

The Globe Machine & Stamping Co., 970-972 Hamilton St., Cleveland, O., send us a postal calendar for July, 1904. This calls attention to the fact that they develop inventions and do experimental work of any character. Another branch of their business is the manufacture on contract of large or small specialties or novelties suitable for the hardware trade, or such goods as require the use of castings in iron or brass, sheet metal stampings or drop forgings, nickel plated or japanned.

The Toledo Stove & Range Co., Toledo, O., send us circulars showing cuts of a number of their popular stoves and ranges. These include the Victor Gem heater, a handsome oak with interchangeable foot rails; the Florence Gem steel range with reservoir and high closet; the Queen Gem steel range with square and high closet; the Star Gem heater for hard coal, soft coal or wood; the Gem Oak for soft coal, hard coal or wood; the Florence Gem steel range with reservoir and high closet with 16-18 inch oven and 6-hole top comes with or without pouch feed. The No. 8-16 has oven 16x18x14 and the No. 8-18 has oven 18x18x14. It is made of planished steel and has cast iron enameled reservoir. The extras are wood box extensions and water front. The Gem Oaks for soft coal, hard coal or wood, are made with 10-inch, 12-inch, 14-inch, 16-inch, 18-inch fire pots. In the No. 18½ size

is an 18-inch fire pot and extra section body. The extras include magazine for hard coal and hot blast for soft coal.

M. W. Madge, 14 Blackstone building, Cleveland, O., is experimenting with a new fuel which is made of materials useless in themselves, we are told, but under the manipulation of the manufacturer, by adding a combination that nature has not provided, produced an excellent substitute for coal. The material is compressed into blocks of about three inches in diameter for stove or general purposes and larger or smaller for manufacturing uses, similar to the German or Belgian process, but made of a different base of unlimited quantities in this country.

The Schill Bros. Co., Crestline, O., send us a circular calling attention to their new Schill range, showing the range with flush reservoir and high closet, and front or pouch feed—also draft door below pouch feed which can be opened to light fire. Another desirable feature is the reservoir casing, which is made of cast iron with front covered with sheet steel. The right end of the reservoir casing is handsomely ornamented. It has spring balance oven door, ventilated oven, extra large ash pan, screw draft plate, and is very handsomely nickeled.

The Blakesley-Tuttle Stove Co., Kansas City, Mo., send us their catalogue No. 1, showing their line of Standard stoves and ranges. Among the desirable agencies which they hold is that of the Pittsburg Stove & Range Co., and in looking over this volume we find such stoves as the Good Luck Special steel range, Diana Good Luck cast range, Wilda Good Luck cast range, Hulda Good Luck wood range and Hulda Good Luck cast range, the Good Luck gas stove for natural or artificial gas, and the Dorcas Good Luck gas heating stove.

The Co-Operative Foundry Co., Rochester, N. Y., for whom John Kontny, 65-67 N. Desplaines St., Chicago, is western agent, have largely redressed and greatly improved their Red Cross Princess steel range, which is also equipped with a new thermometric indicator for 1904. It is built of the finest planished steel with double plates interlined with asbestos. It has a plunge damper in the top and combination wheel register and damper in the pipe. The grates are duplex or dockash and draw out in front instead of longitudinally. The cast broiling door is of ample dimensions. The ash pan is very large and deep. The extreme bottom or cast iron base section is an exceptionally desirable feature. The reservoir casings are of cast iron and rust proof.

RECEIVED 276,848 VOTES.

W. F. Gibbs, the popular salesman in the store of The S. M. Howes Co., of Boston, through the efforts of his friends (a large number of whom are customers of The S. M. Howes Co.), was the second man in his class in the Boston Herald World's Fair Coupon Contest. Mr. Gibbs received 276,848 votes, which number entitled him to a very high place in the contest, irrespective of classes, and also gave him the privilege of inviting another person at the Herald's expense. This latter provision was a particularly felicitous arrangement for Mr. Gibbs, inasmuch as he had taken unto himself a wife, and as his prospects of winning a prominent place in the contest at the date of his wedding, which occurred April 27th, were very good, he deferred his honeymoon trip until the contest should be decided. Mr. Gibbs is very thankful to the large number of his friends and customers whose interest and efforts were of such service to him and wishes to give them his thanks and assure them that their kindness shall be kept in grateful remembrance.

NEWLY PATENTED IMPROVEMENTS IN KING BEE AIR BLAST.

The Culter & Proctor Stove Co., Peoria, Ill., have recently been granted letters patent relating to a new and useful improvement in their King Bee Air Blast, shown in the accompanying illustration, which consists of openings in lift top feed door and a panel provided with perforations secured to the under side of the door as a cover for said openings. These openings are covered with perforated tin, whereby a controllable air supply is delivered directly upon the fire bed and a perpetual air supply is delivered within the upper part of the combustion chamber to prevent explosions, which always occur in other makes of hot blast stoves.

King BeeAir Blast.

Top of Stove.

In the accompanying cut of the stove the arrows in the stove show the air supply as delivered in the combustion chamber. This patent was granted April 26, 1904, No. 758,237, and not only gives ample protection on tin, mica and other metals, but also on perforations in the lift cover.

MEETING EAST ST. LOUIS RETAIL HARDWARE DEALERS' ASSOCIATION.

The East St. Louis Retail Hardware Dealers' Association held their annual meeting recently at East St. Louis, Ill., and elected the following officers for the ensuing year:

President, L. Burkmeyer.
Vice President, F. G. Turner.
Secretary, Ufa Housh.
Treasurer, H. Reese.

Catalogue House Competition.

We take pleasure in presenting herewith an additional batch of interesting letters we have received from various branches of the trade, commenting on the question of catalogue house competition. The different angles of vision show that there is need of greater unison in the ranks of legitimate merchandising—a consummation that is felicitously nearer with each succeeding month.

REAL AND FALSE REMEDIES.

In our May 28th issue we published an editorial on Catalogue House Competition. A traveling man wrote a letter criticising this article in our June 11th issue, and we replied to him in our June 18th issue, and now he writes us a second letter as follows:

SAYS WE ARE TRUCULENT.

"Your truculent editorial in a recent issue is written in a strain of personal abuse and is not that of a dispassionate man. You evidently feel obligated to condone an irritated constituency for having published my letter by childish personalities. This editorial of yours, for example, speaks of travelers who attend conventions as "microscopic men," as an answer to my statement that hardware dealers attend conventions chiefly to sponge on traveling men. Now, your Mr. Stern and your Mr. Johnston have certainly attended enough conventions of retail hardware dealers to know the truth even if you refuse to take heed to it in your editorials. Was there ever a hardware convention that was called together on time? Is it not a fact that every time one is held the president who calls the meeting to order with some fifteen dealers present, while there are 200 names on the hotel register of dealers, says, "More dealers will come in later. I guess they are having a good time with their traveling friends." As regards the plans of Norvell and Simmons, your editorials show such a hostile bias that further argument would be useless."

DOES NOT BELIEVE IN ANONYMOUS COMMUNICATIONS.

John Freeman, Detroit, Mich., writes:

CRITICISM IS INCORRECT.

I note your comment on papers read by Norvell, Simmons and Bogardus on subject "Catalogue Houses," at Atlanta meeting of Southern Hardware Jobbers' Association, also the many anonymous articles covering this subject. I will state that at the present time I am not engaged in the hardware trade, consequently hesitated whether I should give my opinion, but as you have requested me, I will reply by saying that I think your criticism of the Norvell paper that it means a boycott on the manufacturers incorrect. You have got the wrong impression. I do not think that this was the sentiment of the paper. As I would understand it, the object in securing a digest or condition that exists of the many irregularities on the part of some manufacturers, so that this information may be in the possession of the wholesale and retail hardware trade with this before them. The matter could be taken up in a proper and honorable manner with the manufacturers or their agents and the irregularities adjusted on a fair and equitable basis both to the manufacturers, jobbers and retailers and catalogue houses, as I feel that most of the manufacturers are willing to do what is fair in the matter.

INJUSTICE IS NOT REALIZED.

Moreover, many of them do not realize the injustice done in selling catalogue houses as they have been doing, as it has only been in the past few years that this evil has grown to be such a burden to the retailers and annoyance to the jobbers. I do not think that action on these lines would imply a boycott, but would lead up to the conditions as suggested by our friend Bogardus, that other considerations besides quantity should govern price.

AGGRESSIVENESS WOULD HELP.

Mr. Simmons' suggestion of more aggressiveness on the part of the retailer is correct and no doubt would help in part to solve the problem, but the hearty and loyal co-operation of the retailers and jobbers will eventually lead to a proper and satisfactory solution of this unjust competition.

WRITER SHOULD SIGN HIS NAME.

The Missouri and Indiana retailers and the many other anonymous letters covering this question I have no criticism to offer, only to say that no attention should be given to any anonymous communications. If the cause is worthy the discussion of the writer then he should father his criticisms by signing his name. I have often been led to believe in reading some of these anonymous communications in the daily papers and trade journals that the matter was prepared and written in their own office, and were I the proprietor of a paper I would never allow letters of this kind to be published unless they were properly fathered by the signature of the writer.

With this I close, trusting that a remedy may be found for correcting the existing evil.

A VEXED SUBJECT.

A leading Eastern manufacturer writes:

DO NOT GIVE CATALOGUERS JOBBING PRICES.

The whole question seems to be under a most vigorous discussion. Ours is not a line of business handled to any extent by the catalogue houses; our entire business with them for a year does not amount to more than $200 or $300. We never give them the prices we do the jobbers, but about the price a jobber would get from the retail trade.

COUNTRY DEALERS WILL CARRY BETTER STOCKS.

We fully appreciate that the subject is a very vexed one to both the retail hardware man as well as the jobbers, and it will, unquestionably, cause the country retail hardware man to carry better stocks and present his goods more attractively to consumer.

I do not know of anything more that I can add to the question—so much has been said and so well said by the jobbing interests and the retail hardware association.

ADVANTAGES OF CATALOGUE HOUSE TRADE.

An eastern manufacturer writes:

SOME HIT THE MARK.

I have noted a number of articles on the catalogue house question in your paper and the number of letters that have appeared in your recent issues on this question. Several of the writers have gone astray and a few have hit the mark. Those who hit the mark have been those that discussed the question of cost of doing business.

GOODS ARE WRITTEN UP GRATIS.

A catalogue house sale is a sale and that's the beginning of it and the end of it. If they want to use cuts in their catalogue they send to you for electros and reduce them. They write up your goods gratis. They pay cash.

JOBBERS' DELINQUENCIES.

That's a business way of doing business. The jobber pays cash at times. At times he gets credit. If your cut goes in his catalogue he wants you to make it a special size at your expense. Then in some cases he wants you to pay for illustrating and describing the goods in his paper. Again, often as not, he publishes an alleged magazine and wants you to advertise in that. If the market goes down he wants a rebate. Its a case of his getting goods at lowest notch prices to start with with quantity discounts for a larger quantity

than he orders, cash discounts if he can get them on time payments and extras here, extras there.

THE RETAILER'S MITE.

Well, your goods finally go to the retailer and your troubles begin over again. You are asked to spend $100 here, $50 there, $25 the other place for advertisements in all kinds of official publications.

ADVERTISEMENTS IN OFFICIAL HEATING PAPER.

Now let me make a point about these advertisements. I sell a specialty to the heating trade and if I am on the list "In Accord" of the Master Steam & Hot Water Fitters' Association I know that my advertisement in their official bulletin means something, as no one can advertise in that, not for $10,000 a page, if they sell to any but legitimate steam fitters.

ADVERTISEMENTS IN OFFICIAL HARDWARE PAPERS.

But in the official publications of the hardware association your advertisement appears side by side with firms who sell Montgomery Ward & Co. and Sears, Roebuck & Co., and whose goods are listed in their catalogues. You cannot even argue that the fact that you are allowed to advertise in there official publications is presumptive proof that you do not sell catalogue houses. I think, however, that the manufacturer, jobber and retailer are getting nearer together all the time.

CATALOGUE HOUSES SELL CHEAP AND INFERIOR GOODS.

A leading Eastern hardware manufacturer writes:

DIFFERENT CONDITIONS IN EAST AND WEST.

Of course, I am very much interested, and yet the peculiar phase of catalogue house competition as shown in the West does not exist very largely in the East, as the Eastern catalogue houses sell the retailers and not to consumers. While I do not wish to have my name mentioned in the matter, I am, of course, much opposed to the catalogue business, especially in its Western form.

A DEMORALIZING BUSINESS.

Even where the catalogue house sells to the retailer it is demoralizing business for many reasons, among which may be stated the fact that as a rule these houses sell cheap and inferior goods.

They do not carry full assortments.

Their descriptions of goods are often misleading.

The retailer in dealing with them does not have that feeling of security that he enjoys in dealing with an old establihsed and guaranteed jobber.

EDUCATIONAL WORK IS RECOMMENDED.

A certain amount of explanation is necessary in selling goods and the educational work expended by the jobbing salesman can hardly be estimated. Were it not for this educational work done by the jobber it is doubtful whether the catalogue houses could sell their goods at all, and as a matter of fact they reap largely the benefit of the jobber's extensive corps of salesmen.

CANNOT EXIST SIDE BY SIDE.

The two systems can hardly exist side by side, if the catalogue house expects to keep up its present rate of expansion, but I should be very sorry to see the jobbers in the country develop into catalogue houses, either in selling to retailers or consumers.

RETAILER IS ESSENTIAL TO CONSUMER.

So far I have spoken of this only from the standpoint of the jobber, but I think the desirability of local dealers has been most cogently stated by Mr. Bogardus, president of the National Retail Hardware Dealers' Association, and I think it would be a serious day for the country when the retailers were driven out of the small towns and the catalogue houses allowed to possess the land. The consumer would soon realize the inconvenience of not being able to see the goods before buying them. He would also greatly miss the long credit given by the retailer, while the interest of the towns would suffer greatly by losing this volume of trade.

I firmly believe the best interests of the country demand a continued life of the jobber and retailer, and it now rests with the public to cast the deciding vote.

AN ABLE LETTER ON STEEL RANGE AND OTHER PEDDLERS.

The following able letter on the peddler question was written by one of the ablest hardware men in Arkansas and appeared in the Prescott, Ark., Picayune of June 23, under the *nom de plume* of "Plow Boy":

"I have a few things on my mind that I would like to dispose of and if you will give me a short column in your paper I will make use of the opportunity to work them off.

"We are not having much politics now since everything has gone for Davis. I hear some talk of the Populists calling a county convention to nominate a county ticket, but if they should, I think, with the great prosperity that has come over our country within the last few years they will not be able to make much of a stir. Some of the friends of Oliver Jones are wanting him to run for the legislature. If the Populists should nominate a full county ticket, as I hear they are likely to do and put some of their strongest men on it, there might be a lively campaign. It might do the Democratic party good to have to put up a strong fight in order to win. It would cause them to be careful to keep their primaries clean and to put out a ticket of their best men at all times. But this is enough on politics. I want to say some things about the way in which we 'Red necked Billies' suffer ourselves imposed on by the machine peddlers, the buggy peddlers, and the last but not the least, the range peddlers. When money was scarce, cotton low and times hard there was not one of these pirates to be found in all this land and country but just as soon as the farmer began to have a little ahead with fair prospects for the future these vultures began to swoop down upon him and get his 'iron clad note' for these articles at twice their real value. These oilly tongued fellows know all the weakness of the farmer and by their promises of long time and false representations of superior goods succeed in loading up the simple sucker with a debt that ought to have been avoided. I am told on good authority that the 'Home Range peddlers' have sold three carloads of ranges in the territory of Prescott at an average of $73.00 each. I learn that this would make a total of about 150 ranges costing the farmer about $1,100. An examination of the prices in any hardware store will show that these ranges are high at $50.00 and besides that a steel cook stove made of the same material that the range is and that would suit the average farmer better than the range can be had for $25.00. I am told that these unscrupulous fellows do not work the towns at all, but that they go to the 'Hill Billies' to find a sucker. I am not one of those that believe the farmer is any bigger fool than the town dude, but I do know that when these slick ducks want to catch a sucker and palm off their cheap goods at long range prices they strike out for us country people. I'll bet my old blue jumper that there is not a Spalding buggy or a Home Comfort range sold in Prescott this year. If they are such a good thing and the price is right why are they not sold there? It is because they are there so close to the dealer that a comparison is easily made and they know they cannot stand the comparison.

"Our lawmakers recognizing the 'skin game' and swindling schemes of this class of peddlers a few years ago passed a law imposing a license of $200.00 on each buggy and range peddler, but by some technicality they have managed to dodge the law and avoid the penalty. This makes them in spirit and in truth outlaws. But I did not start out to abuse the peddlers, what I wanted to do was to show how easily we can be gulled by those who pay no taxes and help in no way to support our schools and churches. The ordinary farmer does not seem to have the power and the courage to resist the wiles of these plunderers. Let us take time to stop and think and by some concert of action protect those who do not seem to be able to protect themselves."

Seven thousand linear feet, or nearly a mile and a half, of platforms four feet high were built for the unloading of exhibits at the World's Fair.

The Hardware Record.

American Hardware Mnfs. Assn.
Pres., J. C. Birge, St. Louis, Mo.
Vice - Pres., F. S. Kretsinger, Cleveland, Ohio; Harry B. Lupton, Pittsburgh, Pa.; Geo. W. Corbin, New Britain, Conn.
Secy.-Treas., F. D. Mitchell, Phila.
Ex. Com., C. W. Asbury, Philadelphia, Pa.; Chairman; Robert Garland, Pittsburgh, Pa.; N. A. Gladding, Indianapolis, Ind.; Geo P. Hart, New Britain, Conn.; Wm. M. Pratt, Greenfield, Mass., W. S. McKinney, Allegheny, Pa.; E. G. Buckwell, Cleveland, Ohio; E. B. Pike, Pike Station, N. H.

Arkansas Retail Hdw. Dealers' Assn
Pres., Hamp Williams, Hot Springs.
1st. V. P., T. B. Stewart, Newport.
2d V. P., R. P. Graham, Fordyce.
Sec.-Treas., C. E. Taylor, Little Rock.
Ex. Com., J. E. Maxey, Ozark; J. A. Plummer, Marianna; R. P. Allen, Van Buren; J. L. Davis, Magnolia, one year each; Frank B. Gregg, Little Rock; C. T. Rosenthal, Batesville; J. M. Pittman, Prescott, two years each.

Chicago Retail Hdw. Dealers' Assn.
Pres., H. E. Gnadt.
V.-P., G. A. Neeb.
Sec., G. R. Lott.
Collector, John Hora.
Treas. J. L. Smith.

Hardware Merchants' and Manufacturers' Assn. of Philadelphia.
Pres., Thomas Devlin.
V.-P., John R. Griffith.
S.-Treas., T. James Fernley.
Directors, W. W. Supplee, John R. Griffith, E. S. Jackson, W. C. Peters, S. Disston, E. Fisher, J. H. Ritter, T. Devlin, T. J. Fernley.

Indiana Retail Hdw. Dealers' Assn.
Pres., E. M. Bush, Evansville.
1st. V.-P., A. Shidler, So. Bend.
2d V.-P., T. J. Lindley, Jeffersonv'l
Sec.-Treas., M. L. Corey, Argos.
Members Ex. Com., W. P. Lewis, New Albany; Chas. E. Hall, Indianapolis; J. L. Fulton, Portland.

Illinois Retail Hdw. Dealers' Assn.
Pres., Charles H. Williams, Streator.
V.-P., W. T. Gormley, Chicago.
Sec., L. Nish, Elgin.
Treas., Geo. A. Englehardt, Chicago.
Ex. Com., Charles H. Williams, Streator; W. T. Gormley, Chicago, L. Nish, Elgin; Geo. A. Engelhardt, Chicago; Frank McKinney, Rockford; Chas. Johnson, Peoria; L. D. Ray, Belvidere; F. F. Porter, Chicago; Wm. Bittel, Peoria; H. G. Cormick, Centralia.

Indian Territory Retail Hdw. Assn.
Pres., A. L. Severance, Durant.
1st V.-P., Geo. W. Mowbray, Tulsa
2nd V.-P., W. J. Pettee, Oklahoma City.
Secy., W. G. Johnston, Oklahoma City.

Iowa Retail Hdw. Dealers' Assn.
Pres., S. R. Miles, Mason City.
V.-P., H. S. Vincent, Ft. Dodge.
Sec.-Treas., A. R. Sa.e, Mason City.
Members Ex. Com., T. A. Nichols, Burlington; D. A. Stauffer, Iowa City; W. B. Baumgardner, Dubuque; U. S. Johnson, Tama; F. W. Ritter, Hedrick; Thomas Gadd, Des Moines; F. F. Botlinger, Afton; Chas. Swaine, Council Bluffs; Wm. H. Millard, Cherokee.

Kansas Hardware Dealers' Assn.
Pres., Oscar Roehr, Topeka.
V.-P., E. J. King, Logan.
Sec.-Treas., J. A. Cole, Topeka.
Ex. Com., F. W. Bartlett, Kansas City; T. H. Kiniry, Beloit; J. M. Walters, Robinson; J. H. Hamilton, Arkansas City; T. J. O'Neill, Osage City.

Kentucky Retail Hardware and Stove Dealers' Association.
Pres., J. C. Frederick, Owenboro.
1st V.-P., J. C. Mahon, Lawrenceburg.
Sec., John R. Sower, Frankfort.
Treas., J. Steitler, Owensboro.

Michigan Hardware Association.
Pres., John Popp, Saginaw.
V.-Pres., F. M. Brockett, Battle Creek.
Treas., Henry C. Weber, Detroit.
Sec., A. J. Scott, Marine City.
Ex-Com., W. P. Culver, Portland; K. S. Judson, Grand Rapids; J. H. Whitney, Merrill; E. J. Morgan, Cadillac; T. Frank Ireland, Belding; Fred S. Cook, Fowlerville; C. E. Pipp, Otsego; A. Harshaw, Delray; A. J. Scott, Marine City.

Minnesota Retail Hardware Assn.
Pres., A. T. Stebbins, Rochester.
V.-P., George Evenson, St. Peter.
Sec., M. S. Matthews, Minneapolis.
Treas., Geo. F. Duerre, Plain View.
Ex-Com., W. H. Tomlinson, Le Sueur; J. H. Smith, Minneapolis; H. R. Schroeder, St. Paul; J. A. Roehl, Owatonna; W. T. Cowing, Alexandria; C. H. Casey, Jordan; Louis Gewalt, Breckenridge; Chas. F. Ladner, St. Cloud; J. F. McGuire, St. Paul; A. T. Stebbins, Rochester; Geo. M. Evenson, St. Peter.

Missouri Retail Stove and Hardware Dealers' Association.
Pres., Tayler Frier, Louisiana.
V.-P., E. L. Wachter, St. Louis.
Sec., F. N. Neudorff, St. Joseph.
Ex. Com., J. W. Poland, Carrollton; F. N. Kannsteiner, St. Louis; W. T. Shoop, Richmond.

National Hardware Association.
Pres., S. A. Bigelow, Boston.
1st V.-P., John C. Koch, Milwaukee.
2nd V.-P., Brace Hayden, San Francisco.
Ex. Com., F. Barker, Elmira, N. Y.; J. D. Moore, Birmingham, Ala.; John Freeman, Detroit; P. E. Strouss, Boston; R. M. Dudley, Nashville; W. S. Wright, Omaha.
Advisory Board, W. W. Supplee, Philadelphia; H. H. Bishop, Cleveland; John Bindley, Pittsburg; R. A. Kirk, St. Paul.

Nebraska Retail Hdw. Dealers' Asn.
Pres. J. C. Cornell, Ord.
Vice-Pres., F. D. Kees, Beatrice.
2d V.-P., Max Uhlig, Holdrege.
Sec.-Treas., H. J. Hall, Lincoln.

National Retail Hdw. Dealers' Asn.
Pres. W. P. Bogardus, Mt. Vernon, O.
V.-P., W. H. Tomlinson, LeSueur, Minn.
2d V.-P., F. C. Moys, Boulder, Col.
Sec., M. L. Corey, Argos, Ind.
Treas., A. T. Stebbins, Rochester, Minn.
Ex. Com., T. Frank Ireland, Belding, Mich.; James N. Kline, Williamsport, Pa.; Frank F. Porter, Chicago; S. E. Jones, Richmond, Ind.; A. H. Abbe, New Britain, Conn.

N. Dakota Retail Hdw. Dealers' Asn.
Pres., H. F. Emery, Fargo.
1st V.-P., G. W. Wolbert, Bismarck.
2d V.-P., A. C. McNiven, Langdon.
Sec., C. N. Barnes, Gand Forks.
Treas., H. T. Helgesen, Milton.
Ex. Com., E. E. Elliott, Sanborn; H. F. Strehlow, Casselton; Hurbert Harrington, Fargo.

Ohio Hardware Association.
Pres., John F. Baker, Dayton.
V.-P., C. S. Johnson, Barberton.
Cor. Sec., Frank A. Bare, Mansfield.
Fin. Sec., W. C. Jones, Columbus.
Treas., L. F. Stahler, Waverly.
Ex. Com., John C. Fuhr, Williamsburg; John Kramer, Dayton, C. W. Jewell, Utica; W. A. Perry, Zanesville; Frank W. Ingalls, Byran.

Pennsylvania Retail Hdw. Assn.
Pres., Geo. L. Moore Brownsville.
V.-P., Geo. J. Rudolph, Pittsburg.
Sec., J. E. Digby, McKees Rocks.
Treas., B. A. Maggine, Braddock.
Ex. Com., E. E. Lyon, Greensburg; C. N. Savage, California; B. A. Maggine, Braddock; C. O. Shroyer, Dawson.

St. Louis Stove Dealers' Assn.
Pres., R. H. Myers.
1st V.-P., E. L. Wachter.
2d V.-P., G. M. Rinie.
Sec., Louis Boehl.
Treas., F. A. Kannsteiner.

Southern Hardware Jobbers' Assn.
Pres., W. M. Crumley, Atlanta, Ga.
1st V.-P., John Donnan, Richmond, Va.
2d V.-P., E. A. Peden, Houston, Texas.
Ex. Com., Bruce Keener, Knoxville, Tenn.; Chas. Ireland, Greensboro, N. C.; O. B. Barker, Lynchburg, Va.

Texas Retail Hdw. and Imp. Assn.
Pres., S. L. Erwin, Honey Grove.
1st V.-P., W. M. Gunnell, Marlin.
2d V.-P., J. D. Carroll, Quanah.
Sec. & Treas., J. W. McManus, Waxahachie.

Wisconsin Hdw. Dealers' Assn.
Pres., H. L. McNamara, Janesville.
V.-P., Ralph Burtis, Oshkosh.
Sec.-Treas., C. A., Peck, Berlin.
Ex. Com., W. H. Busse, Milwaukee; E. R. Ramm, New London; H. S. Scofield, Sturgeon Bay; R. Murdoch, Beloit.

THE AMERICAN ARTISAN AND HARDWARE RECORD is the only publication containing western hardware and metal prices corrected weekly. You will find these on pages 48 to 52 inclusive.

Geo. A. Riley & Co. succeed the hardware firm of James A. Riley & Son at Goshen, Ind.

The Clare Hardware Co., Clare, Mich., lost $10,000 in a fire which occurred on July 2nd last.

The hardware store of W. A. Cockran, Culdesac, Wash., was visited by fire on June 30th last.

The Tacoma Smelting Co., Tacoma, Wash., will shortly erect a wire plant for the manufacture of copper wire.

Ben Williamson, Guff Wellman and Lillian Eastham are the incorporators of the Ben Williamson Hardware Co., Catlettsburg, Ky., capitalized at $100,000.

The Columbus Hardware Co. sold their retail store on South High Street, Columbus, O., to L. C. Mithoff, who has been secretary of the H. Mithoff Co. for many years.

Will C. Jones, the popular Columbus, O., hardware man, also financial secretary of the Ohio Hardware Association, has sold out to his former partner, D L. Williams.

The Columbus Hardware Co., Columbus, O., is embarking in the wholesale business only, having moved to their new quarters, corner Spring and Third Sts.

The Leader Washing Machine Co. are a new Bay City, Mich., concern who will manufacture washing machines of an improved type, laundry mangles and other laundry apparatus.

The New York Lock Co., 32 Broadway, New York, filed schedules in bankruptcy on June 28th last showing liabilities of $118,607, of which $75,600 are unsecured, and nominal assets of $310,777.

F. A. Chamberlain, a leading Harrisburg, O., hardware dealer, was shot twice on July 4th by a man named Barsh, and was fatally wounded. The latter refused to leave Mr. Chamberlain's store and on being ordered out, shot the proprietor.

At the Warm Springs, Ga., Interstate Shooting Tournament, June 17th, Mr. J. W. Hightower won the live bird trophy for the second time, killing 27 birds straight from the 33-yard line. He used Peters shells, made by the Peters Cartridge Co., Cincinnati, Ohio.

Lyon Bros., Madison, Market and Monroe Sts., Chicago, are making bed rock prices on the Snowflake rotary washer. The self-reversing roller-bearing action makes the operation so easy that any one can do a washing in much less time than is ordinarily required, it is claimed.

L. B. Fleming, Pittsburg, a leading marksman, not content with having won the amateur championship of the United States last year, is going after the same honor for 1904. He not only won the high amateur average at the Pennsylvania State Shoot, but also landed the target championship of western Pennsylvania, breaking 96 out of 100 at the Ruffsdale Tourna-

ment, June 22nd and 23rd. He invariably uses Peters shells, manufactured by the Peters Cartridge Co., Cincinnati, O., which also won the first amateur average for the two days.

Harvey Chapman is president, A. Olin Brooks is treasurer and Harvey Chapman, A. Olin Brooks and Henry M. Brooks are the directors of the Chapman & Brooks Co., Springfield, Mass., capitalized at $40,000 for buying, selling and dealing in all kinds of hardware and woodenware.

S. F. Dana, Geo. F. Dana, Frank M. Snook, J. Edward Sullivan and Frank M. Roosa are the incorporators of the Dana Mfg. Co., Cincinnati, O., capitalized at $100,000 for the manufacture of ice cream freezers and hardware specialties. This is an old establishment whose Peerless Iceland and other freezers are well known to the trade.

The Tower & Lyon Co., 95 Chambers St., New York, send us a little circular calling attention to their Chaplin Improved Patent Iron Planes. Some of the specialties of this firm are the Cyclops nail pullers, Champion screw drivers, patent miter boxes, patent expansive bits, engineers' wrenches, Stephens' patent vices, malleable iron oilers, Perfection saw clamps, etc.

Ludlow S. Sherwood, manager of the Columbian Hardware Co., Cleveland, O., is aggressively pushing the popular hardware specialties of that firm and is meeting with marked success. Mr. Sherwood was formerly with the Ferrosteel Co., and was located in Chicago. When he went to Cleveland he evidently, judging from all reports, carried his Chicago popularity along with him.

The Joseph Dixon Crucible Co., Jersey City, N. J., send us a postal circular calling attention to their flake graphite for the lubrication of air compressors. This graphite imparts to cylinders a wonderful smoothness and polish, filling in and overlaying all irregularities, scratches and the rough grain of the metal. It provides a firm new surface, enduring any temperature, reducing frictional resistance and wholly ending all groaning, grinding or cutting.

The Blacklock Foundry, South Pittsburg, Tenn., send us a circular calling attention to their line of sad irons, which are made in sizes to suit all requirements from 1 to 20 lbs. They are finished in black, bronze, aluminum or full nickel. Their sleeve or flouncing sad iron is made in two sizes, three and four pounds each. The bodies being coated with heat proof aluminum and the face toe and heel being high polished or nickel plated. The blunt nose is so shaped as to insure perfection of work, especially on children's garments.

The members of the Iowa Retail Hardware Dealers' Association are to be congratulated on the success which has followed their efforts, in conjunction with those of the grocers of that state, in pushing the license feature of the peddler law recently passed by the legislature in that state. Already steel range peddlers will find themselves up against a license proposition in the following Iowa counties: Ringgold, Monona, Harrison, Jones, Adair, Grundy, Clarke, Webster, Floyd, Butler, Shelby, Benton, Hamilton, Buchanan, Hardin, Tama, Jackson, Pottawattamie, O'Brien, Cass, Crawford, Bremer, Palo Alto, Cherokee, Page, Jasper, Sac, Ida, Plymouth, Davis, Taylor and Mills.

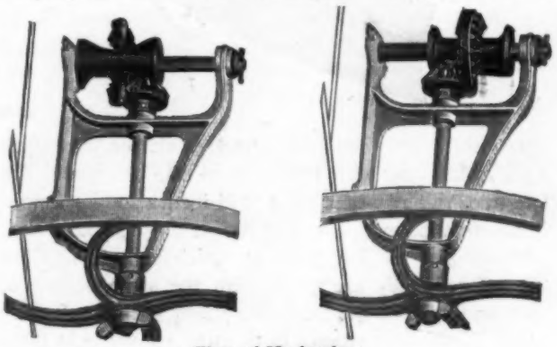
The Columbian Hardware Co., Cleveland, O., are placing a number of lines of new goods on the market, which will fully maintain their past reputation for the highest quality. The new Columbian spring hinge is made in sheet steel, bronze and brass in all finishes, single and double acting. It has extra long springs, special steel bearings, and specially constructed center and side flanges. Their Columbian door spring has stamped steel ends and high grade spring wire. Their complete line embraces various lines of spring hinges and door springs, wire coat and hat hooks, door pulls, blacksmiths' vises, machinists' vises, anvils and steel joist hangers. They will be pleased to have the trade write for their new hardware catalogue, which will be ready Aug. 1st next. When writing for same, kindly add: "Saw it in THE AMERICAN ARTISAN."

IMPROVED SCHROEDER ROTARY WASHER.

The Benbow-Brammer Mfg. Co., St. Louis, Mo., are manufacturers of the improved Schroeder rotary washer shown in the accompanying illustration.

Schroeder Rotary Washer.

This washer has the sliding block of hardwood, reenforced crosswise of the grain. The tub is made of select kiln-dried Louisiana red cypress lumber. It has corrugated staves and bottom. The legs are solid stave, protected by cross braces. The wringer-box bottom is made of cypress 1½ inches in thickness, sloping to the tub; the strongest wringer-box made,


View of Mechanism.

it is claimed. The wringer-box is supported and braced by brackets. The lid is double thickness, tight fitting and bolted together with galvanized bolts. The hinges are extra heavy steel, and bolted with galvan-

ized bolts. The stand or frame is bolted to the lid with galvanized bolts through and bracing the lid. The cover fastener is a steel hasp, which also forms a lift for the cover. The paddles are galvanized to prevent rusting, and attached to a steel shaft. Hoops and castings are all aluminum bronze; making a handsome, strong and durable washer. This firm also make this washer in loose or detachable leg or square box pattern if desired. Their line of washers includes, besides the above named washer, Columbia, Great Western, and The B. B. Rotary Roller Bearing and Brammer Rotary.

They claim as one great advantage that their machines have over others, that they allow no escape of steam, keeping the water hot for a greater length of time, and at the same time preventing disagreeable odors and steam from permeating the house.

TWO NEW RIFLES.

The Winchester Repeating Arms Co., New Haven, Conn., make the announcement that about October 1, 1904, they will put on the market two new 22-caliber single-shot rifles, which will be known as the "Thumb Trigger Model" and the "Model 1904 Single Shot." The former is a decided novelty. As its name indicates, the trigger, which is located on the upper side of the grip at the rear of the bolt, is operated by pressing down with the thumb. It is claimed that this style of trigger is an aid to accurate shooting, as the shooter is not so apt to throw the gun off the object aimed at in pressing down the trigger as when pulling it in the old way. This rifle weighs about three pounds and will list at $3.50. The Model 1904 Single Shot is the biggest value in a gun ever offered. It has a 21-inch heavy round barrel, a handsome, highly finished Schuetzen shaped butt-stock 13¼ inches long with a blued steel rifle butt-plate. The length of this gun over all is 37½ inches and its weight is about 4 pounds. It will list at only $6.00. Notwithstanding the low price at which both these rifles are offered, they are made with the same degree of care and science which characterizes the manufacture of all Winchester rifles. Both guns are made in take-down style and have the same simple and reliable bolt action which has made the Winchester Model 1902 so popular and has caused it to be so widely imitated. The Thumb Trigger and 1904 models will be regularly packed for the trade, ten guns in a case.

Thumb Trigger Model.

1904 Model.

$100 IN PRIZES.

"First impressions are lasting"—so runs the adage. It should be borne in mind that the first impression the possible purchaser receives of a mercantile estabment, hardware or otherwise, is derived from a glance at the front window. If it is an inviting one, this impression is sure to be a favorable one, while a hodgepodge conglomeration of odds and ends inartistically arranged, repels where it should attract customers.

The advertising value of window space is a factor that is systematically under-rated by hardware dealers who are otherwise on the alert to grasp trade opportunities. The great department stores vie with each other in the elaboration and uniqueness of their window displays. Bargains systematically arranged constantly tempt the purses of all passersby. Expert window trimmers at heavy salaries devote their entire attention to the designing of stunning windows.

While such service is out of the question for the average hardware dealer, many of the trade have nevertheless admirably utilized materials at hand and have shown themselves possessed of an innate genius for artistic combination or "effect," as it is generally styled.

Since the goods handled by hardware dealers are so generally duplicated throughout the country, allowing a clever display in one city to be largely borrowed from, if not actually reproduced in another city, THE AMERICAN ARTISAN has decided to inaugurate a window display competition in which we will give the following prizes:

$50 for photograph and description of the best window display of hardware received.

$25 for the photograph and description second in excellence.

$15 for the photograph and description third in excellence.

$10 for the photograph and description fourth in excellence.

CONTESTANTS.

Any hardware dealer or his assistant or clerk, who is a yearly subscriber to THE AMERICAN ARTISAN at the time he sends in photograph and description of window display is eligible to this competition.

TIME.

The photographs may be sent by mail or express, charges prepaid, and must reach this office not later

than noon, September 30th, 1904. Address all photographs to THE AMERICAN ARTISAN Prize Competition, 69 Dearborn St., Chicago, Ill.

CONDITIONS.

Each picture must be signed by a fictitious name or device, and the same name or device must be put upon a sealed envelope, within which are the real name and address of the contestant. This envelope is to be enclosed with the photograph.

AWARD OF PRIZES.

The Competition Committee, one of whom will be a practical window trimming man, and one of whom will be a practical hardware man, will pass upon all photographs and descriptions received within the prescribed time and will decide between the contestants.

GENERAL CONDITIONS.

We reserve the right to use all half-tones and descriptions of same submitted in this competition.

NEW IDEAL RIFLE, ENGLISH MODEL NO. 044½.

The J. Stevens Arms & Tool Co., Chicopee Falls, Mass., will offer the trade their new Ideal rifle, English Model, No. 044½, on about July 1st next.

Ideal Rifle, English Model No. 044½.

This rifle is on similar lines to their regular No. 44½ Ideal rifle with drop forged frame and new sliding breech-block action, but has a tapered barrel, military pattern, rubber shotgun butt and is especially desirable for field and hunting purposes. In weight, the rim fire will be 5¾ pounds, just between the Favorite and Ideal No. 44. It is made for all standard sizes of ammunition and is fitted with bead front sight and sporting rear.

PICNIC OF THE MASON CITY AND CLEAR LAKE, IOWA, HARDWARE DEALERS.

The hardware dealers of Mason City and Clear Lake, Ia., will have a most enjoyable time on July 14th and 15th next. Their programme will include a ball game between the hardware dealers and the traveling men, trap shooting, potato race for girls, three-legged race for boys, board sawing contest for ladies', fat men's race of 50 yards, tug of war, egg race for boys and girls, foot race for ladies, egg and spoon contest for ladies, boat race, swimming race, nail driving contest for ladies, rifle shooting, exhibition shooting and men's 50-yard dash. Besides dealers, a goodly number of traveling salesmen will undoubtedly be present, including G. B. Streeter of the Reed Mfg. Co., Newark, N. Y.; M. A. Heegard of Hibbard, Spencer, Bartlett & Co., Chicago; W. C. Booth of Hibbard, Spencer, Bartlett & Co., Chicago; Jacob Kuppinger of Janney, Semple, Hill & Co., Minneapolis, Minn.; R. R. McCall of Janney, Semple, Hill & Co., Minneapolis, Minn.; W. B. Barney of Fuller-Warren & Co., Milwaukee, Wis.; J. E. Tatum of Farwell, Ozmun, Kirk & Co., St. Paul, Minn.; C. M. Putnam of C. Sidney Shepard Co., Chicago; H. J. Winkie of the Witte Hardware Co., St. Louis, Mo.; R. A. Stubbins of the Peninsular Stove Co., Detroit, Mich.; E. M. Burns of Noves Bros. & Cutler, St. Paul, Minn.; John Haasis of Schrieber & Conchar Co., Dubuque, Ia.; Wm. J. Klein, John Pritzlaff Hardware Co., Milwaukee, Wis., and Harry C. Cure of the Thos. White Stove Co., Quincy, Ill. President S. R. Miles and Secretary A. R. Sale of the Iowa Retail Hardware Dealers' Association will also grace the occasion by their presence.

THE HARDWARE TRADE OF MEMPHIS.

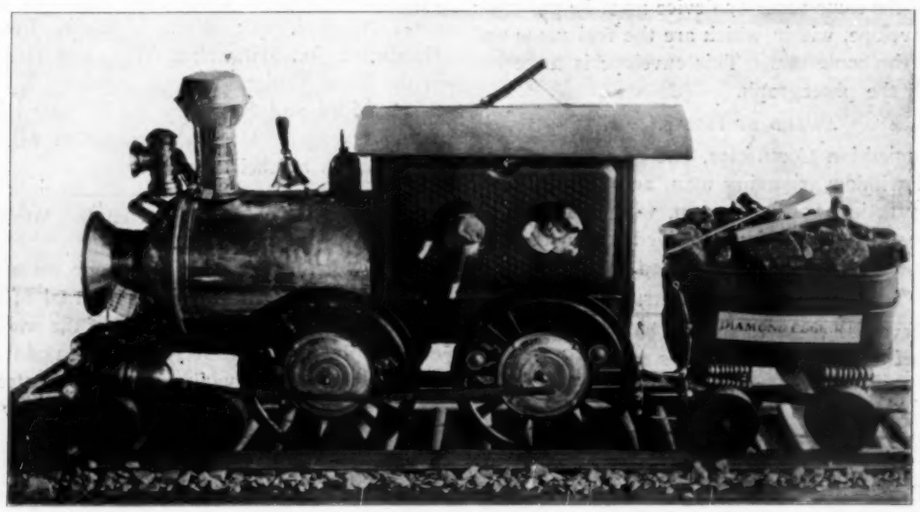
W. S. Hemby, formerly a Chicago trade paper man, is now editor of the Memphis Journal of Commerce. He recently contributed a review of the wholesale trade of Memphis to the anniversary edition of the Memphis Morning News, in which he approximates the value of the wholesale hardware trade of that city at $3,750,000 yearly. In regard to this trade he says:

"The wholesale hardware market of Memphis is celebrated as a distributing center for all manufactured products in iron and steel. It is the manufacturer's goal in the metal line and the dealer's supply point for stocking up in shelf, heavy and builder's hardware, household and kitchenware, stoves, ranges, etc., unto the very end of every conceivable article in the hardware line. The storage warehouse capacity of local jobbing houses has been greatly enlarged, and the volume of business done for the past half year was greater than ever before by a large increase. Prices have been well maintained in relation to current values in iron and steel. The volume of business transacted is on the increase and in keeping with the steady movement of industrial progress. Building operations of the country are expanding the demand for wire nails, wire cloth, wire fence and builders' hardware, and the many things contributing to the consumption of iron and steel manufactures is making Memphis the largest market in the South for general hardware.

A NEW RAILROAD.

Aug. J. Kronsbein, Malvern, Ia., has a most attractive window display of an imitation locomotive, which is illustrated herewith. He styles this railroad the Diamond Edge, after the line of goods which he has sold for a number of years. While this window cost Mr. Kronsbein considerable work, he was very well paid for it, as the large number of people who inspected it declared that it was the finest thing they had ever seen. Hammer handles were used for ties, and a hay carrier track did service for the track. Fine stones were used for ballast. Turning from the track to the locomotive proper. The cow catcher is made

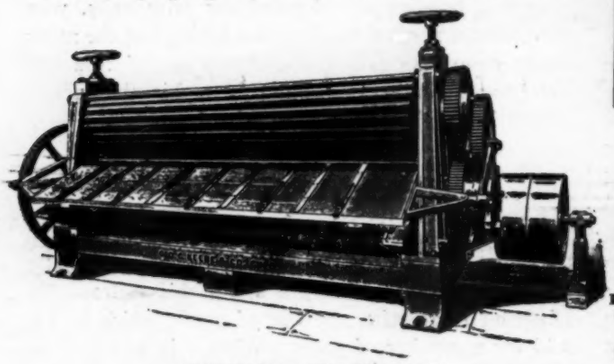
of an assortment of spoons. The front wheel and the tender are made of hay pulleys. The large wheels are floor registers. An oil can serves for a steam chest, while a zig-zag rule does service as a piston rod. The cow catcher platform is made of a bake pan, while a milk pan is ingeniously used as a substitute for the boiler. A bicycle lantern does service as a headlight to light the hay carrier track. The smoke stack is constructed of a quart cup and two small pans, while a dinner bell warns pedestrians ahead that the train is coming. The cab is a gasolene oven with its cover constructed of Russia iron. The tender is a Savery meat roaster with slip top in bottom. The handle to the step is a screen door handle butted together. The springs are 8x10 hinges, while dolls serve as firemen and engineers. The hard coal is contained in a meat roaster, while an ice pick and cake turner take the place of the regulation pick-axe and shovel.



A New Railroad.

DOUBLE CORRUGATING MACHINE.

Geo. C. Keene & Co., Cincinnati, O., are manufacturers of the double corrugating machine, shown in the accompanying illustration. This machine has an automatic feed table, which is composed of only three parts on each end of machine, including cams. The table is at a standstill 7/8 revolution of the roll which gives the operator plenty of time to handle the sheets. The machine can be run five revolutions per minute and four sheets of 28 gauge or one sheet of 16 gauge can be corrugated at one time. The iron after being corrugated, lays flat and is perfectly straight. The rolls are made in any length to 10 feet. It can be made to corrugate any two pitches of corrugation or corrugate from 30 to 16 gauge steel and have the same covering width. Sheets can be corrugated to lay 36 inches.



Double Corrugating Machine.

STEEL KING ICE BALANCE.

The Pelouze Scale & Mfg. Co., 118-132 W. Jackson Boul., Chicago, are manufacturers of the Steel King ice balance shown in the accompanying cut. It is made entirely of steel and the dial is unusually long. Each scale is constructed with a limiter, so that the spring cannot be strained beyond its capacity. This balance can be quickly adjusted if necessary by a removal of the cap on top and a slight turning of the screw. Another popular scale of this company is found in the National, whose base has been changed from straight to curved lines, which adds materially to its beauty. The top plate has been made flat and is supported by double bars instead of a single upright, which guarantees correct weight no matter where the parcel or letter may be laid.

Steel King Ice Balance.

The pointer has also been reduced to needle size, so that there is no momentary confusion or loss of time in finding the weight recorded. Besides the enamel finish, the National is now made in aluminum finish, of pleasing gray tint, with a cameo design in the side by way of ornamentation. This firm have just issued a catalogue "G" showing their line of scales for 1904-1905, which will be forwarded the trade on application. When writing for same kindly add: "Saw it in THE AMERICAN ARTISAN."

W. G. Sundstrom, Iron Mountain, Mich., would like to correspond with A. M. Oleson, formerly of North Dakota.

Catalogue House Conference.

A meeting of hardware men far reaching in its importance took place at the Hotel Jefferson, St. Louis, on June 27, 28, 29 and 30. Roll call on Monday, June 27, was answered by the following gentlemen:

W. P. Bogardus, Mt. Vernon, O., National Retail Hardware Dealers' Association.

S. R. Miles, Mason City, Ia., National Retail Hardware Dealers' Association.

M. L. Corey, Argos, Ind., National Retail Hardware Dealers' Association.

E. M. Bush, Evansville, Ind., National Retail Hardware Dealers' Association.

T. Frank Ireland, Belding, Mich., National Retail Hardware Dealers' Association.

Samuel A. Bigelow, Boston, Mass., National Hardware Association.

S. Norvell, St. Louis, Mo., National Hardware Association.

T. James Fernley, Philadelphia, National Hardware Association.

W. S. Wright, Omaha, Neb., National Hardware Association.

R. A. Kirk, St. Paul, Minn., National Hardware Association.

R. M. Dudley, Nashville, Tenn., Southern Hardware Jobbers' Association.

DISCUSSION WAS THOROUGH.

We are advised that the many phases of this important and interesting question were thoroughly discussed from the viewpoint of the manufacturers, the jobbers, the retailers and the catalogue house.

IRRELEVANT MATTER ELIMINATED.

It was the aim of this conference to eliminate all irrelevant matter and get right down to the main principles and issues involved. Little time was wasted complaining of existing conditions. The questions that were discussed and decided upon were those bearing upon practical and equitable remedies to be applied.

PLATFORM WAS ADOPTED.

After earnest and thoughtful consideration of each point involved, a platform was adopted for the future guidance of those who will be in charge of this work for the jobbing and retail interests of the country.

PORTION OF PLATFORM GIVEN OUT.

It will be obvious to all that some of the very objects this conference had in view would be made more difficult of accomplishment by the publication of all the articles in the platform, but realizing the general interest of the trade in this subject, we are informed that the following is a brief summary of some of these articles.

THE MOST ECONOMICAL SYSTEM.

The present established system of distributing goods from the manufacturer to the jobber, from the jobber to the retailer and from the retailer to the consumer is the most economical and best serves the interest of all classes of our people and therefore must be maintained.

ONE INJURED, ALL INJURED.

The manufacturer, the jobber and the retailer are entitled to a fair and reasonable profit, and any system of merchandising that injures either manufacturer, jobber or retailer should be recognized as an injury to all.

JOBBER AND RETAILER HAVE BEEN GREATLY INJURED.

The present conditions that exist as a result of the methods of the catalogue houses in marketing certain well known manufacturers' brands have greatly injured the jobbing and retail hardware trade of this country, and if such methods are to be encouraged it means the eventual elimination of the hardware jobber and retailer.

A FALSE SYSTEM OF MAKING PRICES.

The catalogue house system of making prices is recognized as being such that a few catalogue houses doing an infinitesimal part of the total hardware business of the country can make prices for the retail hardware trade of the whole country, regardless of consequences.

CATALOGUE HOUSES DEMORALIZE PRICES.

It is recognized that the great injury the catalogue houses are to the trade is not the result of their actual sales but of their general demoralization of prices in the hardware line in order to influence sentiment and sales on other goods on which they make inordinate profits.

A COMMUNITY OF INTERESTS.

It is recognized that neither manufacturer, jobber nor retailer stand alone. It is believed there is a community of interests. It is the duty of the manufacturer to protect the jobber. It is the duty of the jobber to protect the retailer.

MANUFACTURERS' CONTROL OF SALES.

The hardware jobbing trade of this country cheerfully accept the control of many manufacturers in the sale of their goods the object of such control being to prevent the demoralization of prices on such lines, and it is maintained that the same principles should be applied to catalogue houses for the protection of the retail trade.

MANUFACTURERS SHOULD PROTECT JOBBERS AND RETAILERS.

It is not demanded that anyone refuse to sell catalogue houses, but it is emphasized that if any manufacturer or others insist upon selling this class of trade, it is their duty to the jobbers and the retailers to see that the interests of the jobbers and retailers selling such goods are protected.

SHOULD PUSH GOODS OF FRIENDS.

Attention is called to the fact that the only method by which jobbers and retailers can show a practical and substantial appreciation of the good-will of those manufacturers who are willing to exert themselves in the protection of the interests of the retail dealer, is by pushing the sale of their goods.

DIGEST WILL BE COMPILED.

With the desire of placing in the hands of the jobbers and retailers a simple and ready reference of lines of goods and prices shown in the catalogue of prominent catalogue houses, it is proposed to compile a digest of the prices published in the hardware line by the best-known catalogue houses, together with the names of the brands. In cases where the descriptions are purposely made misleading, the correct names, numbers and other description of the goods offered for sale will be given.

DIGEST SHOULD BE USED FOR REFERENCE.

It is recommended that the buyers of both jobbers and retailers refer to this digest whenever placing their orders for the lines therein mentioned.

BUYERS' ATTENTION WILL BE CONCENTRATED.

It is believed that this digest will concentrate the attention of all intelligent buyers of both jobbers and retailers upon such goods as catalogue houses are permitted to use as baits and leaders, and that as a result of such concentration of attention manufacturers will find they will lose more profit on the larger percentage of their sales made through jobbers and retailers than they can possibly gain by not controlling the prices of the catalogue houses.

DIGEST WILL REFER TO SUCCEEDING CATALOGUES ONLY.

As a number of manufacturers whose lines of goods appear in current catalogues have given their assurance that either their lines will not be in future catalogues or that there will be a radical change in many of the prices quoted in such catalogues, it has been decided, in justice and fairness to such manufacturers, that this digest will cover only catalogues issued after this date.

BY-GONES SHOULD BE BY-GONES.

It was the sense of the conference that by-gones should be by-gones; that no manufacturer, jobber or retailer should be criticised for his action in connection with catalogue houses in the past. It was recognized that jobbers' and retailers' associations have been working on this question for a number of years. There was no desire to emphasize any credit that might be due them for their part in the work.

WILL WORK ALONG ASSOCIATION LINES.

It was thought best that this work be carried on by associations and through association membership. All jobbers and retailers not now connected with associations will be welcome to join the association ranks and assist in continuing this work.

A PERMANENT ORGANIZATION.

An important action by the conference was the formation of a permanent organization for the continuance of this catalogue house work, under the name of

THE WHOLESALE AND RETAIL HARDWARE JOINT COMMITTEE.

All members of the three committees taking part in this conference became members of this permanent joint committee, which was organized by the election of

S. Norvell, St. Louis, Mo., chairman.

T. James Fernley, Philadelphia, Pa., general secretary.

M. L. Corey, Argos, Ind., secretary for the retail hardware trade.

And an executive committee of six, composed of the gentlemen mentioned above, and also

W. P. Bogardus, Mt. Vernon, Ohio, president National Retail Hardware Association.

R. M. Dudley, Nashville, Tenn., Southern Hardware Jobbers' Association.

C. B. Carter, Knoxville, Ten., secretary-treasurer Southern Hardware Jobbers' Association.

A COMMITTEE REPRESENTING UNITED INTERESTS.

It is emphasized that this joint committee does not represent jobbers or retailers alone, but is a committee representing the united interests, in one committee, of both jobbers and retailers. It is believed that this is the first committee of the kind that has ever existed in the history of the hardware trade of this country. This fact is a marked indication of the prevailing belief that in this catalogue house question the interests of both jobber and retailer are identical.

ACTIVE WORK WILL BEGIN AT ONCE.

We are further advised that active work will immediately be commenced in various ways among the jobbers in the associations through their buyers and salesmen, and also that important measures will be gotten under way among the retail hardware trade of the country through the National and State Hardware Dealers' Association.

H. L. Corey, Argos Ind., secretary of the joint committee for the retail hardware trade, will correspond with the retail trade on any questions they wish to raise on this subject.

The manufacturers and jobbers are requested to address T. James Fernley, Philadelphia, Pa., general secretary of the joint committee, in regard to this question.

SHOULD JOIN AN ASSOCIATION.

Henry Gracey, secretary of the California Retail Hardware Dealers' Association, has sent out the following forceful argument to hardware dealers in that commonwealth. It will prove valuable reading for hardware dealers wherever situated:

A vigorous, determined youth of sixteen years beginning his career in a retail hardware store, commences at the bottom and climbs steadily up. The difficulties he encounters all but overpower him at times, as night after night tired in body and weary in mind he thinks over the problems of the day and wonders when the time of enlightenment will come. With his never-tiring determination he pushes forward, overcoming obstacles here and there until at last, after years of patient and diligent steadfastness, he awakens to find that he has found the keynote to the situation. The sticktoitiveness was what won the day.

The point in a nutshell is this, my brother hardware man, who else, except a hardware man, can appreciate the hard knocks and years of experience it took you to learn and master the hardware business. It is a recognized fact that it requires more hard study, tact and experience to master the hardware business than any known line of merchandise. Now, if it takes a hardware man, and a hardware man, alone, to appreciate another's ability, they certainly have everything in common with one another. Now, taking the above facts into consideration, what better company can a hardware dealer have than with his fellow hardware men, in the exchange of ideas, sympathy and in fact, in the interchange of everything which is of common interest to all?

The object of a retail hardware association is to promote the welfare of the hardware dealers, where they may be brought into closer sympathy, one with the other; where by concert of action all grievances and misunderstandings may be adjusted or eliminated; where items of broader and wider interests may be discussed; where questions affecting not only the welfare of the retail hardware dealer, but the state itself, may be taken up and unitedly acted upon.

Now, my brother hardware dealers, how better can you benefit yourself and your fellow hardware dealer than by joining your State association? Be honest with yourself and gravely reason this matter out.

AN OPEN LETTER TO IOWA DEALERS.

The officials of the Iowa Retail Hardware Dealers' Mutual Fire Insurance Association have sent out the following letter to the dealers in that state in regard to this proposition:

On May 30th, 1904, the Iowa Hardware Dealers' Mutual Insurance Association declared their first dividend upon policies written in 1903, making a clean, cash refund of twenty per cent (20 %) on all premiums received. Checks for these amounts have been mailed to our customers having policies expiring in July and will be forwarded each month to all policy holders having expirations in the following month. By the end of our first fiscal year we shall have a list of three hundred policy holders and business on our books to the amount of $350,000.

We want to double this business by the end of the present calendar year and thus enable us to make still larger refunds by lessening the ratio of expense to income.

Our system is just as simple and safe as businesslike methods will permit us to make it; but it requires a certain expense to operate our office. Without materially increasing our expense we can handle $3,000,000 of business. This would reduce the ratio of the expense item to a very slight percentage and increase our rebate a very large percentage. For instance on a $3,000,000 basis our premiums would amount to $51,500. The expense of transacting the business would be less than five per cent (5%).

The loss ratio of the largest Hardware Mutual for a period of five years is less than 25 per cent of the premium received. Our loss expense should be no more. This would enable us to pay a rebate of 50 per cent and reserve 20 per cent for unusual contingencies.

Give us an opportunity to demonstrate the correctness of these estimates. If every dealer who receives this letter would place a line of $2,000 insurance with us we can do still better.

The only effort that it costs you is to fill out a simple application blank and determine to patronize an institution organized by your fellow-dealers for your own financial benefit and protection. An agent's commission for writing your application is from 15 to 25 per cent of the premium. If your insurance rate is 2 per cent this is $3.00 on a $1,000 or $6.00 on a $2,000 policy. Suppose it takes you fifteen minutes to make out the application. How can you make money faster? This illustrates how our methods enable us to save you money as compared with ordinary methods of writing insurance.

Our plan of writing is to charge the regular board rate at the time of writing the policy and rebate to the policy holder in cash the difference between this amount and the actual cost of carrying the insurance. This plan relieves you from assessments and saves us the expense and delay of collecting the same.

Now that we have demonstrated our ability to save our policy holders money join hands with us and let us save you and them a still larger amount.

Heating and Ventilating

Wm. F. Latimer has opened a steam heating business at Clinton, N. J.

T. J. Ellison, E. B. Ellison and J. H. Ellison are the incorporators of Ellison & Co., New York, capitalized at $10,000, for dealing in heating, plumbing and steam apparatus.

C. A. Hardwick, Waterbury, Conn., has disposed of the stove and tinware branch of his business and will hereafter devote his entire time to sheet metal work and heating.

Mrs. Walter Lee Brown has been elected as president of B. F. Reynolds & Co., Chicago, manufacturers of the Reynolds steel plate heater, while her brother, E. B. Brown, has been elected as secretary and treasurer.

The Kansas City Furnace Co., Kansas City, Mo., manufacturers of Ideal Steel furnaces and dealers in furnace supplies and superior double safety wall pipe, send us some enameled blotters showing a pretty picture of Cosette, from the painting by A. Asti.

The Forest City Foundry & Mfg. Co., Cleveland, O., are actively pushing their Monarch Air Blast furnaces for soft coal and their Niagara furnaces for hard coal and coke. They also make registers, ash pit doors, furnace pipe and fittings, corner mangers, ventilation grates, mail boxes, etc.

E. M. Winnie, secretary of the Vance Boiler Works, Geneva, N. Y., has, it is said, been placed under arrest, the allegation being made that he had diverted the funds of the company to his personal use. He claims that he will be able to account for every dollar that has passed through his hands.

The Magee Furnace Co., 32-38 Union street, Boston, Mass., are sending out a letter to their customers calling attention to the fact that during June, July and August they close on week days at 5 o'clock and on Saturdays at 1 o'clock, thus giving their employes a little relaxation and fitting them for the fall rush, which is very exacting and trying. They advise the trade to get their orders in as early as possible in order that they may make prompt shipments. Their 1904 model furnace has many radical improvements in its construction and operation, and they suggest that the summer, while the times are quiet, is a good time to investigate its merits.

The Excelsior Steel Furnace Co., Chicago, Ill., handle a complete line of furnaces, hot water boilers, furnace supplies, furnace pipe, etc. They send us a net price list on Excelsior furnace pipe and fittings, which went into effect on June 1, 1904. Besides giving prices on a complete line, this gives prices on hot air pipe and elbows, galvanized iron pipe, black iron pipe, galvanized iron angles, galvanized iron elbows, smoke pipe dampers, plaster collars, box collars, stack and boot collars, side bonnet collars, round cold air collars and adjustable elbows and angles. It also gives the approximate net prices on double wall pipe, Excelsior single square pipe and fittings and register boxes. This firm will be pleased to send one of these price lists to dealers on application. When writing for same, kindly add, "Saw it in THE AMERICAN ARTISAN."

The Schill Bros. Co., Crestline, O., send us a little circular showing a picture of the "Hermitage," the residence which Andrew Jackson built at Huntersville, Tenn., 100 years ago. In 1805 this place was visited by Vice President Aaron Burr, and General Lafayette was entertained there later. It was here that General Jackson's wife died, just after he was elected president. The famous president himself was buried by the side of his wife in a tomb in the garden near this building June 8th 1845. This building was sold in 1856 by Andrew Jackson, Jr., to the state of Tennessee for $48,000. This famous building is now heated by a Schill furnace, made by the Schill Bros. Co., Crestline, O. This furnace was purchased by the Hermitage Society from A. T. Jones, Nashville, Tenn., Southern agent for this Ohio concern, it being pronounced the best and most suitable device for heating this grand old mansion.

The Thatcher Furnace Co., 240 Water St., New York, send us a circular describing the "Empire" vertical steam and hot water heaters. The heater is cast in two pieces only; the fire-pot and dome being in one piece, and the section above the fire-pot the other. These two pieces are connected by a screw nipple, and the two castings are brought together by this nipple upon cast-iron bosses with ground surfaces, so that the fire does not reach this nipple connection, and we guarantee it absolutely tight. It is fitted and mounted and shipped as one piece of casting. The ash-pit is deep and cast in one piece. It is fitted with an improved revolving grate, with teeth at tangents so coal cannot drop between grate bars. The grate is so arranged that it can easily be removed by taking off the front plate of ash-pit. The "Empire" heaters are all fitted with a cast-iron casing, which is made up in four pieces so that it can easily be fitted to heater. This casing is made double, leaving an air space which is lined with asbestos filling, which effectually prevents the radiating of heat into cellar, and adds to economy of heater. The heating surface is very large. The fire is completely surrounded by water; the products of combustion, passing through the openings in the sides and back of the dome, are obliged to pass over the entire outside before going through the openings in front of the upper section; they then go over the upper section, passing through a revertible flue to the smoke pipe. The top section acts as a superheating dome, making very dry steam, which is very essential to a quick working heater and saves coal. The water line is positively steady. Clean-out doors of proper size are conveniently provided. One of these circulars will be forwarded the trade on application. When writing for same, kindly add: "Saw it in THE AMERICAN ARTISAN."

The Roberts Heating & Ventilating Co., 213-217 So. Third St., Minneapolis, Minn., send us a circular calling attention to the storm king furnaces and combination heaters. In this furnace, the products of combustion go first to the top, then downward into the radiator, through the upper section of the radiator to the front ends and back again to the lower section

to the smoke outlet. The air blast attachment produces an almost perfect combustion of the gases and will last as long as the furnace itself. This attachment also serves to prevent the radiation of heat, through the feed door into the basement. A unique feature, which has recently been added to the Storm King is the recess at the left side of the pouch feed which admits of water coil inside the combustion chamber; this does away with all necessity for drilling the door frame, and furthermore, the coil is not in the way when the furnace is fed. The Storm King radiator joint connects steel and cast iron and is, it is claimed, absolutely smoke, gas and air tight. The fire pot is a single one-piece casting, nearly one inch in thickness and made of pure decarbonized pig iron; its strength is also increased by heavy corrugations, which add very considerably to its radiating surface. The grates are of a Smythe triangular pattern. The grate bars can be taken out and replaced independently with comparatively little trouble. The body of this furnace is made of very heavy steel plates; the bottom is protected by a heavy cast flange which sets down into the cup joint around the top of the fire pot and extends up about 4 inches inside the body. The dome cap is made of cast iron, and is corrugated to increase its strength and heating surface.

This firm also issue a special catalogue devoted to the Gem hot water and steam boilers, and a third treating of the Ideal furnace pipe and fittings. These catalogues will be forwarded the trade on application. When writing for same, kindly add, "Saw it in THE AMERICAN ARTISAN."

NEW CHAPPELL FURNACE.

The accompanying cut shows the new Chappell furnace, manufactured by the Chappell Furnace Co., Morenci, Mich.

New Chappell Furnace.

The main points of this furnace are that it is made very heavy and durable, being all cast iron, and that the radiators are core castings, making them seamless and affording a long fire travel (22 ft.), which makes it a most economical furnace. This furnace is adapted for burning wood horizontally, and up even with the fire door, so that the owner does not have to reach over into a deep fire pot to light a wood fire. It is also an established fact that wood will burn better in a horizontal position that it will in an upright one, according to the claim of this concern. The wood grates can be taken out the large fire door, which leaves the horizontal fire box a combustion chamber for hard or soft coal, making a very practical furnace for either city or country use. It is made for either galvanized casing or brick setting, the casing being insulated with ½-inch corrugated asbestos air cell and steel. The ash pit is deep and commodious, has a convenient water pan and the fire door is 12 inches wide and 18 inches high, allowing plenty of room for putting in coarse wood. The door is supplied with a smoke apron to prevent the smoke from coming out when firing, and the radiator is provided with a direct draft damper, which when open will allow the smoke to pass directly to the smoke flue. This firm have greatly increased the capacity of their plant and are in a position to fill orders promptly.

THE HEATING QUESTION.

At the sixteenth annual convention of the Ontario Association of Architects, held in Toronto, January 12, Professor R. C. Carpenter, of Cornell University, delivered an address on "Heating" in which he said that local conditions affected their problems. On the continent of Europe 60 degrees of heat is considered sufficient for a house. In America 70 degrees is required. A lack of moisture in the air results, which affects furniture. Sixteen per cent of moisture is required for the saturation of air Most of us live in houses whose air is dryer than the air of the driest resort. This draws moisture from the body, and results in a much higher temperature being required for comfort. In a moist atmosphere a lower temperature feels comfortable. It costs money to provide proper ventilation. But if the people could be persuaded that the cost of ventilation is less than the cost of a physician, pure air would be as commonly provided as heat now is. The fan system of heating is usually employed in the States, pure air being driven over heated surfaces, ventilation and heating thus being to some extent combined.

In many respects the hot water system is an ideal one for heating. Hot water systems require less coal than steam, and supply the steadiest temperature. A permanent ratio has been worked out in New York in the comparative value of steam and hot water, 100 square feet of steam surface being considered equal to 166 of hot water heating. Steam is open to the objection that the heat cannot be changed by varying the quantity of steam admitted to the radiator. Steam is less costly than hot water systems, and smaller and less conspicuous radiators can be used with steam.

The fact that steam under a lower atmospheric pressure can be generated at a lower temperature than 212 degrees is being taken advantage of. In a vacuum steam can be generated of as low a temperature as 120 degrees. Houses can thus be heated by steam at a lower and more comfortable temperature than has hitherto been the case, and where exhaust steam is available it can be used as a pressure less than atmospheric. Professor Carpenter described several new systems embodying this principle.

The objection to hot water was the large size of radiators required. Certain substances added to water raise the boiling point of water. Glycerine mixed with water raises the boiling point to 300 degrees. If a sufficiently inexpensive salt can be found to add to water, which will not affect the pipes and radiators, this problem will be solved. In hot air heating the furnace should be installed as closely as possible to the windward side of the house.

The architects of Ontario have obtained a notable position in the world from the noble and artistic works they have produced, said Professor Carpenter, and he hoped they would not forget the elements of health and comfort in the construction of their buildings.—Canadian Manufacturer.

Tinshop

CONIC DEVELOPMENTS.

BY J. M. CROWNER.

A development is a drawing which represents the complete view of each and all of the surfaces of an article. This in the language of the trade is called a pattern. However, to obtain the data for a development the elevation or view of the article in its correct position must first be drawn.

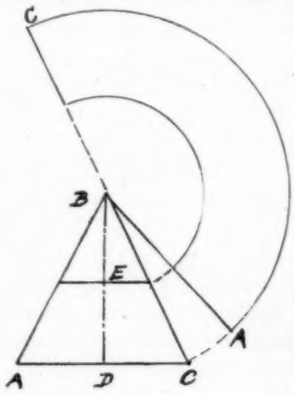


Fig 1

Care must be taken in the construction of the elevation as regards accuracy and position, since all measurements must be taken from the same. An article or pattern is developed when the surfaces composing same are in such relation to each other and on the same plane, which when formed up will complete the form of the article from which the development or pattern was made.

To develop pattern for surface of cone, draw the center line D-B equal to height of the cone; set off D-A equal to one-half diameter of cone, also the same distance D-C, draw lines A-B-C, which completes elevation of cone. To complete development—with B as center and radius equal to B-A, describe arc equal in length to circumference of base of cone; draw lines cutting C-B, A-B, which completes the pattern.

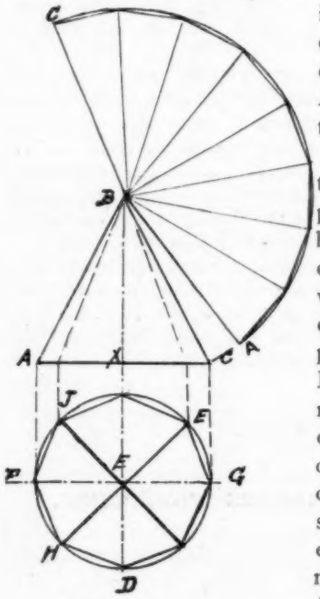


Fig 2

To develop pattern for tapering octagon, first proceed to draw plan or bottom view. With E as center, strike circle which will contain desired octagon; draw the perpendicular line D-E-B through center and at right angles to same draw line F-G. Bisect one of the equal arcs and draw diameter H-I. Bisect one of the other equal arcs in same manner. Straight lines drawn from the several points completes plan of octagon. To draw elevation, set off on D-E-B distance X-B equal to height of octagon; project points of octagon to base of elevation as J and E of plan; strike lines connecting A-B-C, which completes elevation. To complete development—with B as center and radius B-A strike arc equal in length to circumference of base of octagon; divide arc into eight equal parts, and draw lines connecting points with B, which completes the pattern.

To develop pattern for tapering square article—As the method of procedure is practically the same as in the preceding problem no difficulty should be experienced in completing this pattern.

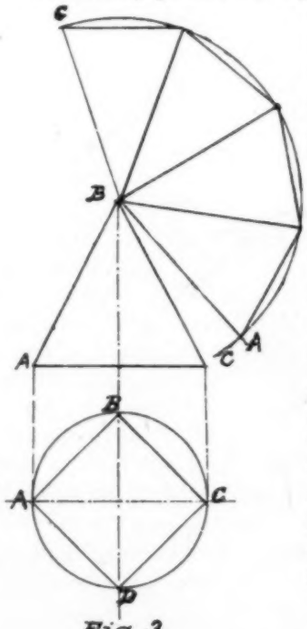


Fig 3

To develop pattern for surface of cone which is cut by plane — First draw elevation of cone A-P-C and plane cutting same D-B. Draw circle representing bottom of cone or plan as in the preceding problems; divide the circle into any convenient number of equal parts, in this case 12; strike lines to base of cone, thence to apex D.

To complete development—With P as center and radius as P-A, strike arc equal in length to circumference of base of cone; divide this into the same number of equal parts as the plan and draw lines intersecting at P. Set off on line C-P and C-P equal to A-D, one line A-P of elevation, 1-1 equal to 1-1, 2-2 equal to 2-2, etc. A line traced through the points thus formed completes the pattern.

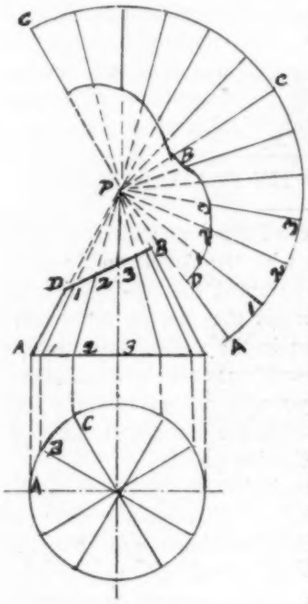


Fig 4

To develop pattern for tapering cylinder connecting two other cylinders parallel to each other but not of equal size and not on the same axis—Let 1-1—A-B represent the upper cylinder, 2-2—C-P lower cylinder. A-B—C-D is the elevation of the tapering cylinder. Make A-B equal to diameter of cylinder, C-P equal to lower end. Connect A-C—B-D and continue lines until they intersect at E. Strike semi-circle A-E-B, divide semi-circle into any number of equal parts, thence draw lines to base A-B and continue from A-B, intersecting at E, which completes elevation.

To complete development of patterns—With E as center and radius E-A, strike arc equal in length to circumference of larger end of tapering cylinder. As this represents the circumference instead of the diameter, as shown at A-B, it becomes obvious that there should be twice as many equal parts as there are shown on elevation. From these points draw lines

intersecting at E. On line B-E, Fig. 6, make E-B equal E-B of elevation, 1-1 equal to 1-1, etc. A line

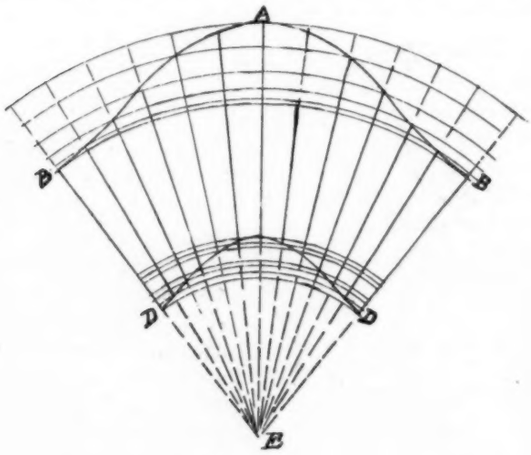


Fig 6

traced through the points thus formed completes the development.

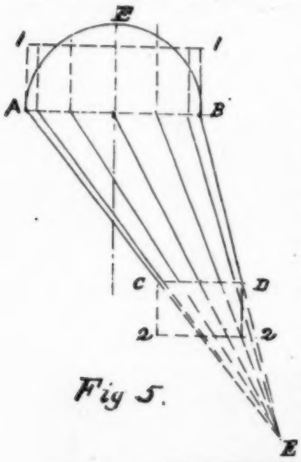


Fig 5.

In these and similar problems it is often helpful to the student to transfer the patterns to heavy paper and cut the different patterns out and form up into the shapes into which they are intended to be. This allows the student at all times to know just why a certain method is carried out as well as become familiar with practical work

NEW SHEET AND TIN PLATE SCALES.

While the sheet workers of the Amalgamated Association at the conference with the American Sheet & Tin Plate Co. last week accepted the continuation of the 18 per cent reduction for the ensuing scale year, they received a concession in the sliding scale, which advances 2.6 per cent for each one-tenth advance above the base instead of 2 per cent as heretofore. The agreement entered into with the American Sheet & Tin Plate Co. has the following proviso:

"It is agreed that scales, including the rebate agreement, be signed temporarily, in accordance with the agreement of the present conference and that the same remain effective unless abrogated at a subsequent conference. It is further agreed that before resuming rebate collections, we will give your rebate committee an opportunity to investigate the necessity for doing so. Conferences to be called on or before July 22, 1904."

The paragraph introductory to the sheet mill scale reads as follows: "It is agreed that when the actual average selling price of Nos. 26, 27 and 28 gauge plain sheet steel f. o. b. mill is 2.30c per pound, the wages for rolling on a sheet and jobbing mill shall be as follows, with 2 6-10 per cent additional for each one-tenth advance above said 2.30 cents selling price and 2 6-10 per cent decline for each deduction of one-tenth to said 2.30 cents selling price." Then follows the schedule that has been in force since the April conference. A number of changes in footnotes are made, mainly in the interest of the workers.

The iron scale is still unadjusted and no date has been fixed for holding further conferences. A number of iron mills have accepted the proposition of the association to continue operation until an agreement is reached. On the board of conciliation of three to arbitrate this scale the Amalgamated Association has chosen M. M. Garland as its representative, while the Republic Iron & Steel Co. has not yet made known its choice. The notice sent out to Amalgamated lodges, together with the form of this agreement, is as follows:

"Below will be found a copy of the continuous operation plan which exists between the Amalgamated Association and some of the large corporations and independent firms. It arranges for settlement by conciliation if the conferences fail to agree. It provides that mills may operate under the old scale pending conciliation. It is understood that the conciliators are to have access to the books of all companies with which points at issue are subject to conciliation. It is agreed that firms are to be given the above privileges upon their agreement to assist local Amalgamated Association officers and committee to collect dues from delinquent members."

CONTINUOUS OPERATION PLAN.

"A yearly scale shall be presented not later than May 1 of each year, said scale to take effect July 1. Failing an agreement by July 1 of any one year, one conciliator shall be selected by the ..... company, one by the Amalgamated Association, and the two so selected shall select a third.

"These three conciliators shall meet the representatives of the ..... company and the general officers and representatives of the Amalgamated Association, of which there shall be such number of employes of the ..... company as the employes of the ..... company in good standing in the Amalgamated Association bear to the whole number of members of the Amalgamated Association in good standing who are governed by this scale.

"They will then try to effect an agreement as soon as possible. Mills to run pending negotiations, and there shall be no cessation of work by the members of the A. A. of I. S. and T. W. It being understood that wages beginning July 1 shall be paid pending negotiations."

For the company:

.....

For ..... Lodge, A. A. of I. S. and T. W.:

.....

METAL CEILING MAKERS WILL PICNIC.

The employes of the Berger Mfg. Co. and The Stark Rolling Mill Co., Canton, O., will hold their annual picnic at Silver Lake, O., July 16, 1904. The following program has been arranged: Ball game, Berger office vs. shop; greased pig contest, open to all employes; 50 yard dash, for ladies only; 100 yard dash, open to employes only; 100 yard fat men's race, 200 pounds and over; running hop, step and jump; pitching quoits contest, distance 50 feet; sack race for boys of 15 years and under; potato race for girls, 15 years and under; standing broad jump; bowling con-

test, for ladies and gentlemen. To employes only—The highest score for one game only to be bowled; egg race for ladies; ball game, Bergers vs. Stark Rolling Mill employes; tug of war, Berger vs. Stark Rolling Mill; prize waltz, for employes only; boat race.

NOTES AND QUERIES.

CHARCOAL IRON.

From I. M. Wendkos, Philadelphia, Pa.

Where can I buy charcoal iron?

Ans. Richmond Iron Works, Richmond Furnace, Mass.

TIME REGULATOR.

From Burrell & Harmon, Duluth, Minn.

Where can we secure a clock apparatus to open the dampers of a heater at any time desired in the morning?

Ans. Quaker Mfg. Co., Chicago Heights, Ill.

BOOK ON CIVIL ENGINEERING.

From A. W. Naylor, Marshall, Mo.

What is the best book on civil engineering and surveying?

Ans.—"Civil Engineering," by W. J. M. Rankine, comprising engineering field work, materials and structure, combined structures, price $6.50, for sale by Daniel Stern, 69 Dearborn St., Chicago.

SICKLE LAWN MOWER.

From Wittich Hardware Co., Larned, Kans.

Who manufactures the Sickle lawn mower?

Can any of our readers answer this question?—Ed.

E. A. STEARNS & CO.

From Carhart & Nye.

What is the address of E. A. Stearns & Co.?

Ans.—We do not know, but E. C. Stearns & Co. are located at Syracuse, N. Y.

ITEMS.

The American Sheet & Tin Plate Co. will shortly spend $500,000 in improving their South Sharon, Pa., sheet mill.

Henry Nahe, for many years a Brooklyn, N. Y., tinware manufacturer, died recently in the 56th year of his age.

Wm. J. Hackett has sold his tinsmithing business at East Gloucester, Mass., to Herbert Stenstream and John De Loid.

The Elwood, Ind., hot mills of the American Sheet & Tin Plate Co. closed down on June 29th last for the regular summer vacation.

Chas. M. King, Chas. D. Burrage and W. M. Greene are the incorporators of the Andes Tin Co., Jersey City, N. J., capitalized at $200,000.

F. Wilckes, F. Wilckes, Jr., and E. Wilckes are the incorporators of the J. Wilckes Co., Rockville Center, N. Y., capitalized at $50,000 for dealing in metals.

The Globe Ventilator Co., 203 River St., Troy, N. Y., send us some blotters calling attention to the Globe ventilator, which is made in brass, copper and galvanized iron and with plate glass tops. This ventilator is simple, durable, ornamental, stormproof and effective; it ventilates buildings perfectly, renders attics comfortable and cures smoky chimneys.

M. C. Ryan, R. G. Jermyn and G. H. Bond are the incorporators of the M. C. Ryan Co., Phoenix, N. Y., capitalized at $5,000, for the manufacture of metal novelties.

C. V. Wagner, A. R. Gordon, L. M. Williamson, B. D. Mills and G. L. Mills are the incorporators of the Standard Tinware & Mfg. Co., Toledo, O., capitalized at $100,000.

The Milwaukee Corrugating Co., Milwaukee, Wis., are large manufacturers of all kinds of tinners' supplies. Their goods include eaves trough, conductor pipe, miters, galvanized wire hangers, galvanized steel hangers, malleable and wrought iron cond., hooks, cutoffs, strainers, valleys, cornices, finials, skylights, cond. pipe, elbows, corrugated sheets, ⅝, 1¼, 2 and 2½-inch steel roofing, galvanized and painted, roll and cap self cap, stand seam, 2-V crimp, 3-V crimp, Kuehn's folded lock seam, Old Style double seam roll roofing, double cross lock curved corrugated iron, steel awnings, beaded ceiling, steel brick, rock face trimmings, etc.

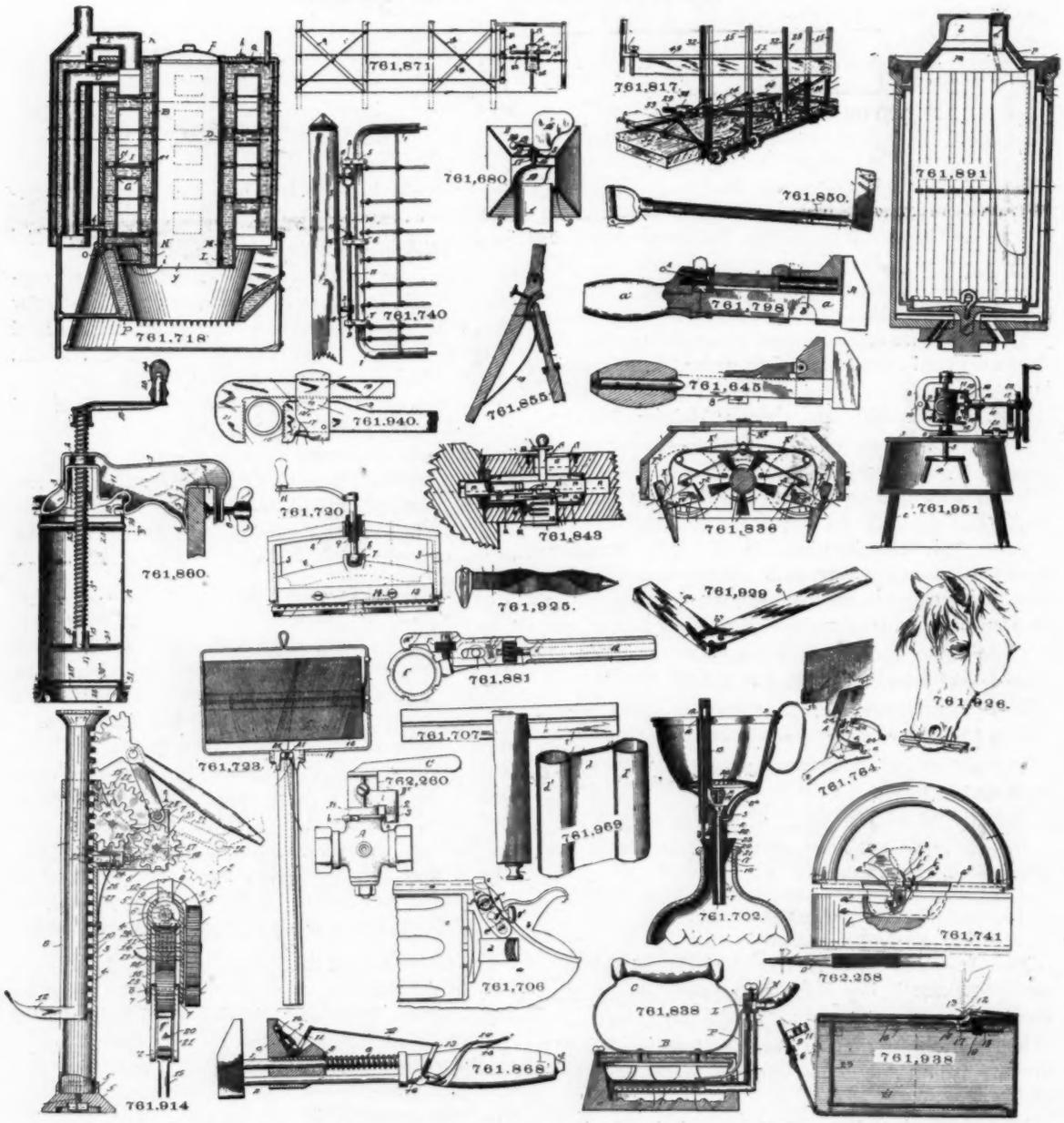
Powers Bros., Streator, Ill., send us a circular calling attention to Powers' Automatic chimney top, which prevents down draft and stops rain and soot from beating down chimneys. The Powers automatic chimney top is claimed to be the only one having a brace at bottom of cover to center bolt; this keeps it in place and prevents it from rubbing on stack. These irons are not made to fit more than one size stack because each should have center bolt and cover to correspond with the stack. These chimney tops were specified and used on a number of the principal buildings at the Chicago World's Fair; they are used on boats, cars, factories and residences thoroughout the United States and Canada with universal satisfaction.

The Garry Iron & Steel Co., Cleveland, O., are very busy in their roofing, eaves trough and iron ore paint departments. They are receiving good orders every day for tin and charcoal iron plates. Their "Garry" roofing cement has established such a reputation that they have recently received the third carload order from one consumer in four months. They have recently secured some very good structural contracts, including a steel building about 77x177 feet for the Elyria Gas Engine Company, at Elyria, roof trusses and columns for the Canton Light, Heat & Power Co., of Canton, two structural steel buildings, one 70x288 feet, and one 35x45 feet, with corrugated roofs, for the Continental Cement Company, of Cassadaga, N. Y.

Among their recent orders in the machine department is a three-motor Special Electric Gantry transfer crane, an entirely new and unique design, which they are to furnish and erect for the Raritan Copper Works at Perth Amboy, N. J., and a Special 4-hook overhead pneumatic crane, for Western Electric Co.

Among export orders is one for a pneumatic revolving crane for London, E. C., ten Special 30-ton pneumatic jacks, for use in the Canadian shops of the Canadian Pacific Ry., and a pneumatic painting machine for shipment to Assiniboia.

NEW PATENTS.



761,645—Wrench. Andrew Baughman, Lowellville, Ohio.

761,680—Ventilator, S. H. Jacobson, New York, N. Y.

761,702—Funnel. John B. Paradis, Biddeford, Me.

761,707—Adjustable square. J. J. Peyman, Springfield, Mass.

761,706—Sight for firearms. J. J. Peard, Hartford, Conn.

761,718—Water-heater. Michael Schaack, Chicago, Ill.

761,720—Saw-set. John Sperber, Pittsburg, Pa.

761,723—Twine-holder. William Steger, Marietta, Ohio.

761,741—Handle for sad-irons. Carl Winter, Chicago, Ill.

761,740—Gate-latch. David Wilson, Dekalb, Ill.

761,764—Miner's lamp holder. Joseph Danner, Scranton, Pa.

761,798—Wrench or the like. Frederick E. Walden, Worcester, Mass.

761,817—Adjustable miter box. Samuel C. Burris, Seattle, Wash.

761,836—Carpet sweeper. Walter D. Hodson, Marion, Ind.

761,838—Sad iron. Joseph H. James, Fort Scott, Kan.

761,843—Lock. Joseph Lyon, Dayton, Ohio.

761,850—Scrub hook. John McLean, Welwyn, Canada.

761,860—Domestic press. Lawrence H. Taylor, Fairview, Okla.

761,855—Dividers. Ternay R. Skinner, Dubois, Pa.

761,868—Wrench. Norman E. Atkinson, Littles, Ind.

761,881—Spanner wrench. V. H. Ernst, Jersey City, N. J.

761,891—Centrifugal cream separator. Perley L. Kimball, Bellows Falls, Vt.

761,781—Wire tightener. Jacob D. Braun, Fulton, Kan.

761,914—Lifting jack. Gladstone Riggs, Bothell, Wash.

761,926—Subduing device for animals. Arnold W. Van Loghem, Kalamazoo, Mich.

761,925—Nail for spike. A. Smith, Traverse City, Mich.

761,929—Try-square. Charles L. Weld, Providence, R. I.

762,258—Nail set and holder. Laroy S. Starrett, Athol, Mass.

762,260—Stop and waste cock. Charles A. Stone, Cleveland, Ohio.

761,938—Rural free delivery mail box. Eustace Bevan, Pekin, Ind.

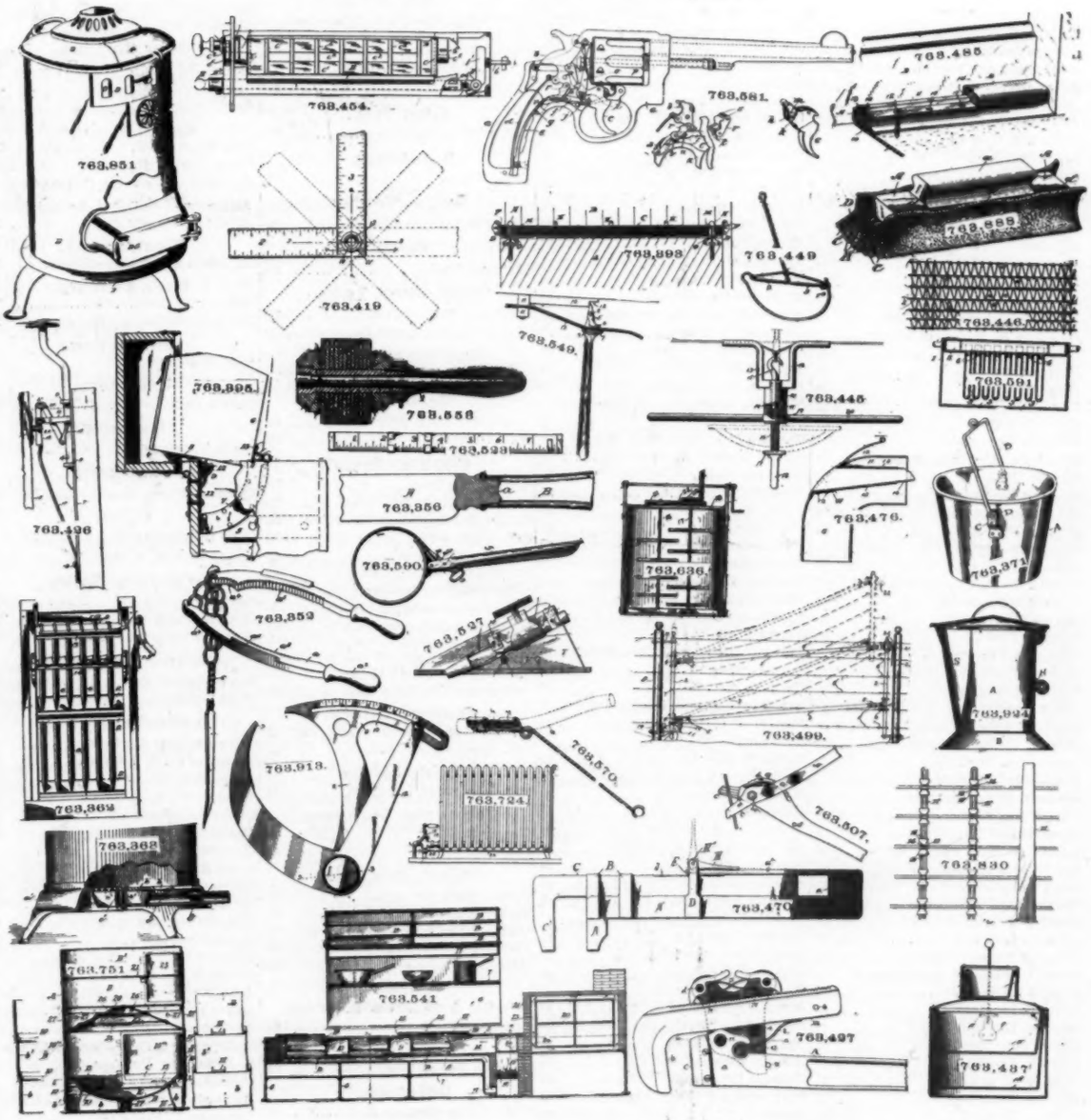
761,940—Wrench. John G. Bowles, Boston, Mass.

761,951—Gearing for washing machines. Herman J. Duve, Davenport, Iowa.

761,961—Wrench. Thomas W. Highfill, Farmer City, Ill.

761,969—Hinge. William J. Keene, Chicago, Ill.

NEW PATENTS.



763,352—Hand-tool. William W. Barton, Salt Lake City, Utah.

763,356—Knife. George Brabrook, Tauton, Mass.

763,362—Coal Sieve or Separator. John G. Brock, Excello, Mo.

763,363—Gas-stove. Henry H. Brown, Washington Court House, Ohio.

763,371—Well-bucket. Clarence A. Crane, Warren, Ohio.

763,393—Door-hanger. Charles E. Harrington, Chicago, Ill.

763,395—Trunk. Eugene W. Hawley, Milwaukee, Wis.

763,419—Folding Square. Joseph Offermann, Minneapolis, Minn.

763,426—Gate-latch. Phares N. Risser, Elizabethtown, Pa.

763,427—Pipe and Nut Wrench. John Rumery, Cleveland, Ohio.

763,437—Dinner-pail. Herbert Sobey, Republic, Mich.

763,445—Device or Tool for Tightening Fence Wires. Frank Vogelzang, Rock Valley, Iowa.

763,446—Wire Fence. William M. Wadleigh, Milks Grove, Ill.

763,449—Eaves-trough Hanger. Cecil S. Wolford, Coshocton, Ohio.

763,454—Stove-grate. Antonio Alitto, Chicago, Ill.

763,470—Sliding-jaw Wrench. Albert D. Erb, Hubbard, Oregon.

763,476—Stovepipe-ventilator. William P. Garrison, Chicago, Ill.

763,485—Carpet-fastener. William Haussler, Derby, Conn.

763,507—Wire-tightening Pliers. Rolla E. Quick, Paw Paw, Mich.

763,541—Range. Quince Crane, San Diego, Cal.

763,549—Wire-stretcher. Richard H. Ferguson and Louis N. Prevost, Baltimore, Md.

763,553—Mallet. George B. Goddard, Brockton, Mass.

763,581—Revolver. Daniel B. Wesson, Springfield, Mass.

763,591—Radiator. John W. Brown, Latrobe, Pa.

763,724—Heating Apparatus. John Collis, Des Moines, Iowa.

763,751—Oven for Gas, Gasolene, or Oil Stoves. Ella D. Harris, New York, N. Y.

763,830—Wire-fence Stay-clamp. Perry B. Yeider, Helena, Mont.

763,851—Heating-stove. Edwin R. Cahoone, Troy, N. Y.

763,888—Window-cleaner or the Like. Henry A. Hayden, Jersey City, N. J.

763,913—Calipers. John T. Lemon, Columbus, Ohio.

763,924—Slop-pail. Edward Pierce, West Burlington, Ia.

763,499—Railroad or Farm Gate. Eugene D. Mills, Kansas City, Mo.

763,590—Wrench. Ray J. Berthoud, Swanton, Ohio.

763,523—Measuring-rule. Justus A. Traut and Frank L. Traut, New Britain, Conn.

763,527—Cutting-tool. Augustus E. Venn, Chicago, Ill.

763,636—Churn. Chandler Y. Roberts, Caradan, Tex.

763,570—Rein-support. William Schluter, Wellsburg, Ia.

ADVERTISERS' INDEX.

ALPHABETICAL LIST.

Aitchison, The Robert Perf'd Metal Co 55
American Lock Nut Co 55
American Stove Repair Wks 56
American Sheet & Tin Plate Co 60
Ashland Steel Range & Mfg. Co 8
Atkins, E. C. & Co., ... 76
Atlas Bolt & Screw Co 1
Atlas Mfg. Co 76
Auer Register & Mfg. Co 9
Avery Stamping Co 70
Baker McMillen Co 65
Barnett, G. & H. Co 1
Beckman Bros 65
Beckman Co 74
Beckwith, Estate of P. D 22
Benbow-Brammer Mfg. Co 68
Benedict & Burnham Brass and Copper Co 63
Berger Bros. Co 60
Berger Mfg. Co 59
Bergstrom Bros. & Co 14
Bertsch & Co 62
Boynton Furnace Co 15
Brammer, H. F. Mfg. Co 68
Brauer, A. G. 56
Bridgeport Chain Co 1
Bridgeport Crucible Co 76
Brooks, Peel & Co. 54
Burgess Soldering Furnace Co 58-59
Burton, W. J. Co 70
Canton Clothes Dryer & Mfg. Co 65
Canton Steel Roofing Co 59
Carr & Co 65
Century Post Co 55
Chappell Furnace Co 17
Chicago Furnace Supply Co 19
Chicago Stove Wks 10
Clark Novelty Co 71
Clark, Quien & Morse 68
Clayton & Lambert Mfg. Co 59
Columbian Hdw. Co 73
Columbus Bolt Works 1
Connors, Wm. Paint Mfg. Co 1
Cooney & Geiger 54-60
Co-operative Fdy. Co 6
Cope, Geo. W. Pattern Works 56
Cortright Metal Roofing Co 59
Craig-Reynolds Foundry Co 15
Cream City Cornice Co 54-59
Cronk & Carrier Mfg. Co 69
Crown Ventilator Co 53
Denning Fence Works 65
Detroit Heating & Lighting Co 20
Detroit Register Co 54
Diener, Geo. Mfg. Co 59
Disston, Henry & Sons 72
Dixon, Jos. Crucible Co 55
Dreis & Krump 62
Dust, Wm. T. Co 56
Eclipse Stove Co 7
Eller, J. H. & Co 59
Enterprise Mfg. Co. of Pa 72
Enterprise Enamel Co 55
Excelsior Steel Furnace Co 21
Exhibit & Trading Co 1
Farwell, Ozmun, Kirk & Co 71
Ferrosteel Co 21
Forest City Fdy. & Mfg. Co 13
Foster, C. H 20
Foster Stove Co 10
Fox Cutlery Co 70
Friedley & Voshardt 60
Gagan, J. M. & Co 68
Galesburg Cornice Works 61
Garry Iron & Steel Co 61
Gem City Stove Co 7
Germer Stove Co 11
Globe Machine & Stamping Co 69
Globe Ventilator Co 76
Great Western Stove Repair Co 56
Green Foundry & Furnace Wks 9
Hanson Bros 63
Harmon, M. D 54
Hawkeye Wrench Co 69
Henry & Scheible Co 19
Hill Dryer Co 65
Hoffman, Geo. W 19
Hooper, C. N 54
Hopson-Haftencamp Co 55
Howes, S. M. Co., ... 56
Illinois Roofing & Supply Co 76
Independent Register Co 14
Iwan Bros 63
Johnson, E. J. & Co 62
Joliet Stove Works 3
Kanneberg Roofing & Ceiling Co 60
Keene, Geo. C. & Co 62
Keyless Bank Co., Ltd 55
Kimball Bros. Co 55
Kontny, John 6-15
Lee-Glass-Andreesen Hdw. Co 75
Lufkin Rule Co 70
Lyon Bros 66
Maher & Son 55
Mansfield Stove Pattern Works 56
McClure Co 76
Meyer & Bro. Co 16
Meyer Furnace Co 16
Millers Falls Co 71
Milwaukee Corrugating Co 61
Milwaukee Pattern Works 56
Miskimen Furnace Co 17
Monroe Foundry & Furnace Co 17
Montross Roofing Co 55
Morris Stove Repair Co 56
Moshiek, P 54
Mueller, L. J. Furnace Co 14
National Enameling & Stamping Co 75
Niagara Machine & Tool Works 62
Nilson Walters Wrench Co 54
Nineteen Hundred Washer Co 66
Norris & Loring Hdw. Co 54
North Bros. Mfg. Co 65
Obermayer, S. Co 57
O'Halloran & Jacobs 62
Osgood Scale Co 76
Perkins, J. L. & Co 1
Peters Cartridge Co 76
Pittsburgh Stove & Range Co 2
Plume & Atwood Mfg. Co 63
Portsmouth Stove & Range Co 2
Powers Bros 1
Pullman Mfg. Co 70
Quincy Washing Machine Co 67
Rea, E. K 63
Resor & Co., Wm 4
Richards Mfg. Co 69
Richardson & Boynton Co 16
Roberts Chemical Co 57
Robinson Furnace Co 18
Royal Ventilator & Mfg. Co 63
St. Louis Electrotype Fdy 55
Sandusky Tool Co 70
Sanitary Pump & Tubing Co 68
Schwab & Sons Co 20
Security Lightning Rod Co 63
Seither Cherry Co 71
Sheet Metal Specialty Co 62
Signal Mail Box Co 55
Smith & Anthony Co 9
Smith, Chas. Co 18
Smith & Hemenway Co 69
Sperry, D. R. & Co 65
Stanley Rule & Level Co 70
Stanton Heater Co 19
Star Shovel & Range Co 9
Stern, P. T 57
Stevens Arms & Tool Co 76
Stevens, F. B 57
Stowell Mfg. & Fdy. Co 20
Stuber & Kuck 69
Swan, J. T 69
Sykes Steel Roofing Co 55
Taylor & Boggis Fdy. Co 57
Thatcher Furnace Co 12
Titchener & Co 70
Toledo Stove & Range Co 10
Union Brick Bond Co 57
Utica Drop Forge Co 69
Van Pelt, Chas. A 71
Van, John, Range Co 8
Wabash Screen Door Co 21
Weiss, H. & Co 62
Weller Pattern Co 56
White Lily Washer Co 68
White, Thomas, Stove Co 5
Wickramanayata & Co 54

CLASSIFIED LIST.

Ash Doors.
Stowell Mfg. & Fdy. Co 20

Blankets.
Beckman Co 74

Bolts.
Atlas Bolt & Screw Co 1
Columbus Bolt Wks 1

Brass
Benedict & Burnham Brass and Copper Co 63
Plume & Atwood Mfg. Co 63

Brick Handlers.
Union Brick Bond Co 57

Brick Ties.
Union Brick Bond Co 57

Bull Rings.
E. K. Rea 63

Burrs—Copper
Plume & Atwood Mfg. Co 63

Cans.
Stuber & Kuck 69

Carpenters' Tools.
Sandusky Tool Co 70
Stanley Rule & Level Co 70

Carriage Robes.
Beckman Co 74

Cartridges.
Norris & Loring Hdw. Co 54
Peters Cartridge Co 76

Ceilings Metal.
Berger Mfg. Co 59
W. J. Burton & Co 70
Canton Steel Roofing Co 59
J. H. Eller & Co 59
Friedley & Voshardt 60
Hopson-Haftencamp Co 55
Illinois Roofing & Supply Co 76
Kanneberg Roofing & Ceiling Co 60
Milwaukee Corrugating Co 61
J. L. Perkins & Co 1

Chains.
Bridgeport Chain Co 1

Clothes Driers.
Canton Clothes Dryer & Mfg. Co 65
Hill Dryer Co 65

Coffee Mills
Enterprise Mfg. Co. of Pa 72

Conductor Hangers.
Berger Bros. Co 60
Iwan Bros 63

Conductor Pipe
Berger Bros. Co 60
Berger Mfg. Co 59
Clark, Quien & Morse 68
Friedley & Voshardt 60
Garry Iron & Steel Co 61

Copper.
Benedict & Burnham Brass and Copper Co 63

Corn Cribs.
Denning Fence Works 65

Cornices.
Berger Mfg. Co 59
Cream City Cornice Co 59
J. H. Eller & Co 59
Galesburg Cornice Works 61
Milwaukee Corrugating Co 61
Sheet Metal Specialty Co 62

Cornice Brakes.
Dreis & Krump 62
G. C. Keene & Co 62

Corrugated Iron.
Garry Iron & Steel Co 61
Milwaukee Corrugating Co 61
Sykes Steel Roofing Co 55

Cream Separators.
Galesburg Cornice Wks 61
Norris & Loring Hdw. Co 54
Seither, Cherry Co 71
Chas A. Van Pelt 71

Cream Separator Faucets.
Clark Novelty Co 71

Cutlery.
Cronk & Carrier Mfg. Co 69
Farwell, Ozmun, Kirk & Co 71
Fox Cutlery Co 70
Smith & Hemenway Co 69

Dampers
Wm. T. Dust Co 56
S. M. Howes Co 56
Taylor & Boggis Foundry Co 57

Dies—Sheet Metal.
Globe Machine & Stamping Co 69

Door Hangers.
Cronk & Carrier Mfg. Co 69
Richards Mfg. Co 69

Door Springs.
Columbian Hdw. Co 73

Drills.
North Bros. Mfg. Co 65

Eaves Trough.
J. H. Eller & Co 59
Garry Iron & Steel Co 61
Kanneberg Roofing & Ceiling Co 60

Electro-Platers' Supplies.
Roberts Chemical Co 57

Electrotypes.
St. Louis Electrotype Fdy 55

Enamel Ware.
Enterprise Enamel Co 55
Nat'l Enameling & Stamping Co 75

Enameling.
C. N. Hooper 54

Exporters.
Carr & Co 65

Faucets.
Clark Novelty Co 71

Fence Gates.
Denning Fence Works 65

Files.
C. & H. Barnett Co 1
Henry Disston & Sons 72

Forming Rolls.
Bertsch & Co 62
G. C. Keene & Co 62
Niagara Machine & Tool Works 62

Foundry Supplies.
S Obermayer Co 57
F. B. Stevens 57

Furnaces—Hot Air.
Auer Register & Mfg. Co 9
Estate of P. D. Beckwith 22
Bergstrom Bros. & Co 14
Boynton Furnace Co 15
Chappell Furnace Co 17
Chicago Furnace Supply Co 19
Co-operative Fdy. Co 6
Craig-Reynolds Foundry Co 15
Detroit Heating & Lighting Co 20
Excelsior Steel Furnace Co 21
Forest City Fdy. & Mfg. Co 13
Germer Stove Co 11
Green Fdy. & Furnace Wks 9
Henry & Scheible Co 19
John Kontny 6-15
Meyer Furnace Co 16
Miskimen Furnace Co 17
Monroe Foundry & Furnace Co 17
L. J. Mueller Furnace Co 14
Pittsburgh Stove & Range Co 2
Richardson & Boynton Co 16
Robinson Furnace Co 18
Schwab & Sons Co 20
Smith & Anthony Co 9
Chas. Smith Co 18
Stanton Heater Co 19
Thatcher Furnace Co 12

Furnace Pipe and Fittings.
Chicago Furnace Supply Co 19
Excelsior Steel Furnace Co 21
Forest City Fdy. & Mfg. Co 13
F. Meyer & Bro. Co 16

Fuel Economizers.
W. J. Burton Co 70

General Merchandise.
Lyon Bros 66

Hardware Jobbers.
Clark, Quien & Morse 68
Farwell, Ozmun, Kirk & Co 71
Lee-Glass-Andreesen Hdw. Co 75
Norris & Loring Hardware Co 54

Hardware Specialties.
Clark Novelty Co 71
Columbian Hdw. Co 73
Richards Mfg. Co 69
J. T. Swan 69
Taylor & Boggis Fdy. Co 57

Hay Carriers.
Stowell Mfg. & Fdy. Co 20

Hay Knives.
Iwan Bros ... 63
Stowell Mfg. & Fdy. Co ... 20

Heaters—Steam and Hot Water.
Boynton Furnace Co ... 15
Monroe Foundry & Furnace Co ... 17
L. J. Mueller Furnace Co ... 14
Richardson & Boynton Co ... 16
Chas. Smith Co ... 18
Thatcher Furnace Co ... 12

Hinges.
Columbian Hdw. Co ... 73

Hoes.
Sandusky Tool Co ... 70

Hollow Ware.
Avery Stamping Co ... 70
D. R. Sperry & Co ... 65

Hot Water Attachments.
Chas. Smith Co ... 18

Ice Cream Freezers.
North Bros. Mfg. Co ... 65

Lanterns.
Berger Mfg. Co ... 59

Levels.
Baker McMillan Co ... 65
Stanley Rule & Level Co ... 70

Lighting Systems.
Detroit Heating & Lighting Co ... 20

Lightning Rods.
Maher & Son ... 55
Security Lightning Rod Co ... 63

Mail Boxes.
Century Post Co ... 55
Hopson-Haftencamp Co ... 55
Signal Mail Box Co ... 55
Taylor & Boggis Foundry Co ... 57

Meat Choppers.
Enterprise Mfg. Co. of Pa ... 72
Smith & Hemenway Co ... 69

Metal Polish.
Geo. W. Hoffman ... 19

Mica.
A. G. Brauer ... 56
Wm. T. Dust Co ... 56

Nail Pullers.
Norris & Loring Hdw. Co ... 54
Smith & Hemenway Co ... 69

Nuts.
American Lock Nut Co ... 55
Atlas Bolt & Screw Co ... 1
Columbus Bolt Works ... 1

Oil Cans.
Cooney & Geiger ... 60

Paints.
Wm. Connors Paint Mfg. Co ... 1
Jos. Dixon Crucible Co ... 55

Pencils.
Jos. Dixon Crucible Co ... 55

Pliers.
Cronk & Carrier Mfg. Co ... 69
Utica Drop Forge Co ... 69

Pistols.
Stevens Arms & Tool Co ... 76

Planes.
Sandusky Tool Co ... 70
Stanley Rule & Level Co ... 70

Plumbago.
Wickramanayata & Co ... 54

Post Hole Augers.
Iwan Bros ... 63

Potash.
Roberts Chemical Co ... 57

Pruning Shears.
Cronk & Carrier Mfg. Co ... 69

Pumps.
Beckman Bros ... 65
Sanitary Pump & Tubing Co ... 68

Punches.
Bertsch & Co ... 62
American Lock Nut Co ... 55
Geo. C. Keene & Co ... 62
Niagara Machine & Tool Wks ... 62
H. Weiss & Co ... 62

Rain Water Cut Offs.
Cooney & Geiger ... 60

Rasps.
G. & H. Barnett Co ... 1
Disston, Henry & Sons ... 72

Registers.
Auer Register & Mfg. Co ... 9
Chicago Furnace Supply Co ... 19
Excelsior Steel Furnace Co ... 21
Ferrosteel Co ... 21
Forest City Fdy. & Mfg. Co ... 13
C. H. Foster ... 20
Henry & Scheible Co ... 19
Independent Register Co ... 14
L. J. Mueller Furnace Co ... 14
R. J. Schwab & Sons Co ... 20
Stowell Mfg. & Fdy. Co ... 20

Rifles.
Lee-Glass-Andreesen Hardware Co ... 75
J. Stevens Arms & Tool Co ... 76

Rivets.
Atlas Bolt & Screw Co ... 1
Plume & Atwood Mfg. Co ... 63

Roofing—Iron and Steel.
American Sheet & Tin Plate Co ... 60
Berger Mfg. Co ... 59
W. J. Burton Co ... 70
Canton Steel Roofing Co ... 59
Cortright Metal Roofing Co ... 59
Cream City Cornice Co ... 59
Friedley & Voshardt ... 60
Garry Iron & Steel Co ... 61
Kanneberg Roofing & Ceiling Co ... 60
Milwaukee Corrugating Co ... 61
Montross Roofing Co ... 55
J. L. Perkins & Co ... 1
Sykes Steel Roofing Co ... 55

Roofing Cement.
Wm. Connors Paint Mfg. Co ... 1
Garry Iron & Steel Co ... 61
J. L. Perkins & Co ... 1

Roof Paint.
Wm. Connors Paint Mfg. Co ... 1
Joseph Dixon Crucible Co ... 55
Garry Iron & Steel Co ... 61
J. L. Perkins & Co ... 1

Rules.
Lufkin Rule Co ... 70
Stanley Rule & Level Co ... 70

Sad Irons.
Enterprise Mfg. Co. of Pa ... 72

Sash Balances.
Pullman Mfg. Co ... 70

Saws.
E. C. Atkins & Co ... 76
Henry Disston & Sons ... 72
Millers Falls Co ... 71

Saw Sets.
E. C. Atkins & Co ... 76
Henry Disston & Sons ... 72
Smith & Hemenway Co ... 69

Scales.
Beckman Bros ... 65
Hanson Bros ... 63
Osgood Scale Co ... 76

Screws.
Atlas Bolt & Screw Co ... 1
Columbus Bolt Works ... 1
Sandusky Tool Co ... 70

Screw Drivers.
North Bros. Mfg. Co ... 65
Smith & Hemenway Co ... 69

Shaving Sets.
Fox Cutlery Co ... 70

Shears.
Bertsch & Co ... 62
Geo. C. Keene & Co ... 62
Niagara Machine & Tool Works ... 62
H. Weiss & Co ... 62

Sheet Metal Architectural Ornaments.
Friedley & Voshardt ... 60
Kanneberg Roofing & Ceiling Co ... 60
Sheet Metal Specialty Co ... 62

Sheet Metal Specialties.
Globe Machine & Stamping Co ... 69
Sheet Metal Specialty Co ... 62

Shelf-Brackets.
Atlas Mfg. Co ... 76

Shot Guns.
Lee-Glass-Andreesen Hdw. Co ... 75
Stevens Arms & Tool Co ... 76

Shovels.
Avery Stamping Co ... 70
Star Shovel & Range Co ... 9

Sifters.
Hill Dryer Co ... 65
Stuber & Kuck ... 69

Skylight Gearing.
H. Weiss & Co ... 62

Skylights.
Cream City Cornice Co ... 59
Galesburg Cornice Works ... 61
Sheet Metal Specialty Co ... 62

Slates and Slaters' Tools.
E. J. Johnson & Co ... 62
O'Halloran & Jacobs ... 62

Squares, Machinists'.
Henry Disston & Sons ... 72
Stanley Rule & Level Co ... 70

Stampings—Sheet Metal.
Globe Machine & Stamping Co ... 69

Staples.
Titchener & Co ... 70

Steel Ranges.
Ashland Steel Range & Mfg. Co ... 8
Auer Register & Mfg. Co ... 9
Beckwith, Estate of P. D ... 22
Bergstrom Bros. & Co ... 14
Chicago Stove Works ... 10
Co-operative Fdy. Co ... 6
Eclipse Stove Co ... 7
Farwell, Ozmun, Kirk & Co ... 71
Foster Stove Co ... 10
Gem City Stove Co ... 7
Germer Stove Co ... 11
Joliet Stove Works ... 3
John Kontny ... 6-15
Pittsburgh Stove & Range Co ... 2
Portsmouth Stove and Range Co ... 2
Wm. Resor & Co ... 4
Star Shovel & Range Co ... 9
Toledo Stove & Range Co ... 10

Stoves.
Ashland Steel Range & Mfg. Co ... 8
Beckwith, Estate of P. D ... 22
Bergstrom Bros. & Co ... 14
Chicago Stove Works ... 10
Eclipse Stove Co ... 7
Farwell, Ozmun, Kirk & Co ... 71
Foster Stove Co ... 10
Gem City Stove Co ... 7
Germer Stove Co ... 11
Joliet Stove Works ... 3
John Kontny ... 6-15
Pittsburgh Stove & Range Co ... 2
Portsmouth Stove & Range Co ... 2
Wm. Resor & Co ... 4
Smith & Anthony Co ... 9
Star Shovel & Range Co ... 9
Toledo Stove & Range Co ... 10
John Van Range Co ... 8
White Stove Co ... 5

Stoves—Gas.
Ashland Steel Range & Mfg. Co ... 8
Pittsburgh Stove & Range Co ... 2
Independent Register Co ... 14

Stoves—Oil.
National Enameling & Stamping Co ... 75
Taylor & Boggis Fdy. Co ... 57

Stove Boards.
Wabash Screen Door Co ... 21

Stove Cement.
Jos. Dixon Crucible ... 55

Stove Clay.
Bridgeport Crucible Co ... 76

Stove Mats.
Stuber & Kuck ... 69

Stove Patterns.
Geo. W. Cope, Pattern Works ... 56
Mansfield Stove Pattern Works ... 56
Milwaukee Pattern Works ... 56
Weller Pattern Co ... 56

Stove Repairs.
American Stove Repair Wks ... 56
A. G Brauer ... 56
Wm. T. Dust Co ... 56
Great Western Stove Repair Co ... 56
S. M. Howes Co ... 56
J. L. Morris Stove Repair Co ... 56

Sugar Kettles.
Sperry & Co ... 65

Tapes
Lufkin Rule Co ... 70

Tinners' Furnaces.
Burgess Soldering Furnace Co ... 58-59
Clayton & Lambert Mfg. Co ... 59
G. W. Diener Mfg. Co ... 59

Tinners' Tools.
Bertsch & Co ... 62
Niagara Machine & Tool Works ... 62
H. Weiss & Co ... 62

Tinplate.
American Sheet & Tin Plate Co ... 60
Berger Mfg. Co ... 59
Canton Steel Roofing Co ... 59
J. H. Eller & Co ... 59
Garry Iron & Steel Co ... 61
Illinois Roofing & Supply Co ... 76
Lee-Glass-Andreesen Hdw. Co ... 75
McClure Co ... 76
Milwaukee Corrugating Co ... 61

Tinware.
Enterprise Enamel Co ... 56
Hill Dryer Co ... 65
P. Moshiek ... 54
National Enam. & Stamping Co ... 75
Stuber & Kuck ... 69

Trowels.
Avery Stamping Co ... 70
H. Disston & Sons ... 72

Tubing.
Benedict & Burnham Brass and Copper Co ... 63
Sanitary Pump & Tubing Co ... 68

Tumbling Barrels.
Globe Machine & Stamping Co ... 69

Ventilators.
Cream City Cornice Co ... 59
Crown Ventilator Co ... 53
Friedley & Voshardt ... 60
Globe Ventilator Co ... 76
Iwan Bros ... 63
Powers Bros ... 1
Royal Ventilator & Mfg. Co ... 63
Sheet Metal Specialty Co ... 62

Wagon Brackets.
Norris & Loring Hdw. Co ... 54
J. T. Swan ... 69

Wash Boilers.
P. Moshiek ... 54
Stuber & Kuck ... 69

Washing Machines.
Benbow-Brammer Mfg. Co ... 68
H. F. Brammer Mfg. Co ... 68
Clark, Quien & Morse ... 68
J. M. Gagan & Co ... 68
Lyon Bros ... 66
"1900" Washer Co ... 66
Quincy Washing Machine Co ... 67
White Lily Washer Co ... 68

Weather Strips.
Norris & Loring Hdw. Co ... 54

Wire Fence.
Denning Fence Works ... 65
Chas. A. Van Pelt ... 71

Wire Goods.
Denning Fence Words ... 65
Titchener & Co ... 70
Chas. A. Van Pelt ... 71

Wrenches.
Hawkeye Wrench Co ... 69

Trade Report.

CHICAGO IRON MARKET.

Despite low prices, small demand, and false prophets everything points to a stable, conservative market for some time to come, with prices at a rising tendency. The crop prospects have not been better during the past ten years. Railroads have pursued a policy of strict economy of late. When these sanguine crop prospects have been realized to some extent, it is anticipated that railroads will be in the market heavily, to supply the deficit caused by their past economy.

Manufacturers of pig iron and its concomitants have not fared so badly as many suppose. This is especially true of the merchant steel industry. Most sellers in this market have figured more sales for the last six months than for the same period during 1903. Implement manufacturers are looking for a heavy demand during the coming year. They believe the advent of the presidential election is holding trade in abeyance. Sound business men predict a return of prosperity when this question has been settled.

There is little question but what the pig iron market is taking on a decidedly better tone. Northern irons are especially strong. $13.50 for No. 2 foundry is the minimum price of all Chicago furnaces. Deliveries at this schedule may be made far into the future. A substantial tonnage was booked last week, extending into December, 1904, and in some cases longer.

Southern irons are quiet. Three months' requirements are the longest that can be met at the present scale of prices. Prices have a rising tendency, ranging from $9 to $9.50, Birmingham, for No. 2.

It is now certain that the $3.65 freight rate between Birmingham and Chicago will be continued for some time to come. The Louisville & Nashville, Frisco and Q. & C. roads have stipulated to that effect. There is small doubt but what the Pennsylvania and Monon systems, which have been holding out for a return to the $3.85 tariff, will fall rapidly into line. The higher rate would have smothered the improving demand for Southern irons, which has been marked during the past month. All interests have good cause to congratulate themselves that no advance is to be made.

Coke continues weak, with the supply far in excess of the demand. Prices are sagging in consequence.

BILLETS.

The billet association held a meeting in New York July 7th. The results of this meeting have not been announced at the present writing, but many expect a reduction in the price-schedule. Orders have not been heavy or numerous in consequence, and the market is not strong. Shading of prices is indulged in regularly. We continue to quote for Bessemer and open-hearth billets, 4x4 and larger, up to .25 carbon, $24; up to and including .60 carbon, $1 extra; over .60 carbon, $2 extra. Billets, 3⅞ inches and smaller, and sheet and tin bars, $25. Open-hearth billets from store, $1.30 per 100 lbs.

STRUCTURAL STEEL.

As was the case all spring, large contracts are pending, but very few have been let. Ten thousand tons of building material are reported on the market; 25,000 tons for the extension of the South Side Rapid Transit will be let shortly, probably this fall. Prices are unchanged, and we quote carlots, mill shipments, Chicago delivery, as follows: Beams and channels, 16 inches and under, 1.76½c; 18 inches and over, 1.86½c; universal plates, 1.76½c; angles, 3x3 and larger, 1.81½c; zees, 1.76½c. On lots from store, we quote beams, channels and angles, 3x3 and larger, 2c; beams, 18, 20 and 24 inch, 10c extra; tees, 2.05c rates.

MERCHANT STEEL.

Inquiries for future deliveries indicate a good volume of business for the next six months. Specifications continue in abundance. New business is not heavy, though the implement makers brought the total up to a fair average during the last week. No change is reported in prices, and we continue to quote carload lots, mill shipments, Chicago delivery, as follows: Spring steel, 2c; sleigh shoe, flat sizes, 1.56½c; concave and convex, 1.76½c; cutter shoe, 2.25c; smooth finished machinery steel, 1.76½c base; smooth finished tire, 1.71½c; plow steel, 2.30c and upward, according to quality; toe calk, 2.06½c base. Ordinary grades of crucible tool steel, 6½c to 8c; special tool steel, 12c up. Cold rolled shafting, 52 per cent from list in carload lots, and 47 per cent discount in less than carload lots.

CAST IRON PIPE.

Demand for this product is limited to small lots, and in the aggregate a good round tonnage is closed up each week. Prices are unchanged, and we quote 4-inch water pipe, $26; 6 to 12 inch, $25; larger sizes, $24.50; gas pipe, $1 a ton higher.

MERCHANT PIPE.

Producers have nothing to complain of. New business is quite heavy and installments on specifications are of good volume. Competition has forced down prices about 10 per cent. We quote carload lots, mill shipments, random lengths, f. o. b. Chicago, as follows:

MERCHANT PIPE.

	Steel Pipe.		Guaranteed Wrought Iron Pipe.	
	Black Percent.	Galv. Percent.	Black. Percent.	Galv. Percent.
⅛ to ⅜ inch....	68.35	53.35	67.35	52.35
½ inch	71.35	61.35	70.35	60.35
¾ to 3 inches...	76.85	66.85	75.85	65.85
3½ to 6 inches..	75.35	65.35	74.35	64.35
7 to 12 inches...	70.85	55.35	69.85	54.35

CHICAGO HARDWARE SCRAPS.

No remarkable changes in the local hardware situation are to be chronicled. The same quiet, determined

conservatism prevails, though dealers do not hesitate to cover for the season's requirements. The extreme tardiness of anything like hot weather has extended June trading into July. As a result, summer goods, as screen-doors and cloths, garden-hose, lawn mowers, ice-boxes, etc., are selling very freely. It is estimated that June business for 1904 compares favorably with that of last year, while the July business will well exceed the corresponding month of 1903.

Builders' hardware is dull just at present. Numerous large buildings are about to be erected, however, and the next week will probably witness the closing of some large contracts. Prices are weakening. Prices on locks will doubtless be reduced at the next meeting of the Amalgamation. Lack of demand for many other builders' articles has caused sagging prices.

The directors of the American Steel & Wire Co. will hold a meeting next week. It is probable that the question of price schedule will be settled definitely at that time. Any reduction in wire nails will effect a corresponding reduction in the cut-nail price. Prices on cut nails are very ragged.

Corn knives have fallen 25c. Ajax are now quoted at $2.10 per doz. Corn hooks are higher. Jobbers' prices per doz. are as follows: Common, unpolished, $1.40; common, polished, $1.80; "Cut Easy," $2.75; Clyde's, $2.00. The Globe No. 1 washing machine is selling at $53.00 per doz.—a reduction of $3.50. Safety Flexible and No. 315 Prouty's barn door hangers are lower at $5.44 per doz. The discount on window glass, single and double strength, all sizes, has been raised to 90 and 15 per cent. The rates on Sewall & Day Sisal rope are $0.10.

Prices on barb and smooth fence wire are suffering a relapse, though nominally the old schedule is being maintained. Manufacturers have reached a point where they find it necessary to make price-concessions in order to keep their mills in continuous operation. There is practically no new tonnage being placed and sellers are going after new orders vigorously. This falling off in demand is strictly seasonable and to be expected. It will probably be followed by a period in which the demand will exceed the supply.

OLD MATERIAL.

Railroads have been selling heavily and at comparatively good prices. These prices are exceptionally high considering the small demand of consumers at this time. No regular schedule of price is adhered to, but the following presents a fair summary, on gross tons: Old iron rails, $14.50 to $15.00; old steel rails (4 feet and over), $11.00 to $11.50; old steel rails (less than 4 feet), $9.50 to $10.00; relaying rails, subject to inspection, $23.00 to $24.00; relaying rails for sidetracks, $18.00 to $20.00; old wheels, $11.50 to $12.00; heavy melting steel, $9.50 to $10.00; mixed country steel, $7.00 to $7.50.

COPPER.

The market for ingot copper is quiet but steady as last quoted. Lake is quoted at 12⅝@12¾c; electrolytic, 12½@12⅝c; casting, 12⅛@12¼c. The London closing was cabled firm: Standard copper spot, £57 2s 6d; futures, £57.

The Copper Manufacturers' Association quotes manufactured copper steady and unchanged on a basis of 18c per lb for sheets and bars. Yellow sheathing material is quoted on a basis of 15c.

PIG TIN.

Pig iron has shown some fluctuation with the tendency pretty steady downward, London closing weak yesterday at £117 for both spot and futures. Spot tin was quoted at 25.60@26c in New York, with futures at 25.65@26c. The jobbing price is 26½@26¾c.

TIN PLATES.

Tin plates are steady at the following prices: Melyn, $6@6.50; Alloways, $5.25@5.75; coke, $4.87½@6.50; ternes, $4.50@7; additional X, $1.50@1.75 more.

LEAD.

The American Smelting & Refining Company is still quoting pig lead at 4.20c for 50-ton lots in New York and 4.27½c for 25-ton lots, both for future shipment. Spot lots are quiet at 4.25@4.35c in New York. St. Louis is quoted at 4.12½c. The jobbing price is 4¾@5c, according to quantity. The London quotation is £11 11s 3d.

Manufactured lead is firm at: Lead pipe, 6¾c; sheet, 8¼c; tin pipe, 50c; tin-lined pipe, 12½c; old lead in exchange, 3¾c; tea lead, 3¼c.

SPELTER.

Spelter is firmer. Round lots, New York, 4.85@4.95c for spot and futures; jobbing, 5⅜@5⅝c.

ZINC.

Sheet zinc, cask lots, 6⅛c; small lots, 7⅛c; St. Louis is steady at 4.80c; London, £22.

ANTIMONY.

Antimony is slow. Round lots, New York: Cookson's, 7@7½c; Hallet's, 7@7¼c; United States, 6@6¼c; Italian, French and Japanese, 6@6¼c.

NICKEL.

Nickel, 40@47c for large lots, and 50@60c for small lots.

QUICKSILVER.

Quicksilver, New York, $44.50@45 per flask for large lots; small orders, $46; San Francisco, $44@45, domestic orders; for export, $41.50@42; London, £8.

ALUMINUM.

Aluminum, No. 1 ingot, 33c per lb; No. 2, 31c.

Current Hardware and Metal Prices.

THE AMERICAN ARTISAN AND HARDWARE RECORD is the only publication containing western hardware and metal prices corrected weekly.

METALS.

FIRST QUALITY BRIGHT PLATES.

		Per Box.
IC	14x14	$10 25
IC	14x20	6 75
IX	14x20	8 00
IXX	14x20	9 20
IXXX	14x20	11 60
IXXXX	14x20	12 85
IC	20x28	13 50
IX	20x28	16 00
IXX	20x28	18 40
IXXX	20x28	20 80
IXXXX	20x28	23 20

COKE PLATES.

Cokes, 180 lbs	IC	20x28	8 50
Cokes, 200 lbs	IC	20x28	8 80
Cokes, 216 lbs	IC	20x28	9 10
Cokes, 216 lbs	IX	20x28	11 10

PIG IRON.

Lake Sup. Charcoal	$14 50@$15 00
Local Coke Fdy No. 1	14 00@ 14 25
Local Coke Fdy No. 2	13 5 @ 13 75
Local Coke Fdy No. 3	13 00@ 13 25
Local Scotch Fdy No. 1	14 25@ 14 90
Ohio Strong Softeners, No. 1	14 80@ 15 30
Southern Silvery	14 85@ 15 85
Southern Coke No. 1	13 15@ 13 40
Southern Coke No. 2	12 65@ 12 90
Southern Coke No. 3	12 40@ 12 65
Southern Coke No. 4	12 15@ 12 40
Southern No. 1 Soft	13 15@ 13 40
Southern No. 2 Soft	12 65@ 12 90
Alabama Car Wheel	18 85@ 19 35
Malleable Bessemer	14 00@ 14 50
Jackson Co. Silvery	17 80@ 18 30

BLACK SHEET STEEL.

No. 16	per 100 lbs.	$2 40
No. 18-20	per 100 lbs.	2 45
No. 22-24	per 100 lbs.	2 50
No. 25-26	per 100 lbs.	2 55
No. 27	per 100 lbs.	2 60
No. 28	per 100 lbs.	2 70
No. 29	per 100 lbs.	2 90

POLISHED SHEET STEEL.

No. 24 per 100 lbs	$4.85
No. 26 " "	$5.95
No. 27 " "	$5.05
No. 28 " "	$5.15

SMOOTH STEEL.

Wood's Smooth	No. 15-17	2 85
" "	No. 18	2 95
" "	No. 20	2 80
" "	No. 22-24	2 90
" "	No. 25-26	3 00
" "	No. 27	3 10
" "	No. 28	3 20

PATENT PLANISHED SHEET STEEL.

Patent Planished Sheet Steel. "A" $10 20, "B" $9 20

GALVANIZED IRON

No. 16 (regular sizes) per 100 lbs.	$2 80
Nos. 18 & 20, per 100 lbs	2 95
Nos. 22 & 24, per 100 lbs	3 10
No. 26, per 100 lbs	3 30
No. 27, per 100 lbs	3 50
No. 28, per 100 lbs	3 70
No. 30, per 100 lbs	4 00
Nos. 22 & 24 x 36 in., per 100 lbs	3 30
No. 26 x 36 in., per 100 lbs	3 50
No. 27 x 36 in., per 100 lbs	3 70
No. 28 x 36 in., per 100 lbs	3 90

SOLDER.

XXX Guaranteed ½&½, per lb.	20¼c
Commercial ½&½ per lb.	19 c
No. 1 Plumbers	17¾c

SHEET ZINC.

600 lb. Casks	base, per cwt. $6.25
300 lb. Casks	per cwt. 6.45
Sheets	per cwt. 6.50

COPPER.

Copper	base, 21c

TIN PIGS AND BARS.

Banca, pigs, per lb	35@35¼c
Straits pigs, per lb	35c
Straits in bars, per lb	37c

LEAD.

American Pig	$4 60@4 62½c
Bar	6¼
National (White) brands (in less than 100 lb. lots) per lb	7½
Sheet.	
Full coils per 100 lbs.	$6.75
Cut " " "	7.25

HARDWARE.

ADZES.

Carpenters'.	
Ajax	35&10%
Blood's	40&10%
Hunt's	25%
White's	12½%
Coopers'.	
Barton's	20%
White's	15%
Ship.	
Ajax	33⅓%
Blood's	37½%
Hunt's	25%
White's	12½%

AMMUNITION.

Caps, Percussion—per 1,000.	
F L Waterproof, 1-10s	40c
G D	35c
Eley's	52c
Cartridges.	
Peters Rim Fire Ctgs	50&3%
Peters Cent Fire, Pistol & Rifle	25&3%
Peters Cent Fire, Military and Sporting Ctgs	15&3%
Peters Blank Ctgs, except 22 and 32, an additional 10% from above discount.	
Peters Blank Ctgs. 22 cal	$1 18
Peters Blank Ctgs. 32 cal., C. F.	4 40
Peters B B Caps, Round ball	$1 44
Peters B B Caps, Conical ball	$1 85
Winchester Cent. Fire, Military and Sporting Ctgs	15&3%
U. M. C. B B Caps, Con. Ball	$1 85 net
U. M. C. Rim Fire Shot Ctgs.	50&15&3%
U. M. C. Cent. " " "	25&15&3%
Primers.	
Berdan Primers	$1 00
Peters Primers	1 20
Winchester Primers	1 20
Shells.	
Peters Empty Paper Shells, 10 and 12 gauge. League	35&3%
Peters Empty Paper Shells, 16 gauge. League	30&3%
Peters New Victor Nitro Shls	30&3%
Ideal	35&7%
Peters Loaded Shells. League and Referee Semi-Smokeless	40&1%
Peters New Victor Loaded Shells with King's Smokeless	40&6%
Ideals Loaded with King's Smokeless	40&10&10&1%
Winchester Blue Rivals	40&1%
Winchester Yellow Rivals	40&1%
Winchester Repeater	30&3%
Winchester Leader	40&6%
U. M. C. Loaded Shells, Black Powder	40&1% full cases
Winchester Loaded Shells, Black Powder	40&1% full cases
Gun Wads—per 1,000.	
Peters Gun Wads	18%
U. M. C. Gun Wads	18%
Powder.	Each
King's Smokeless, kegs	$11 30
" " ½ kegs	5 80
" " ¼ kegs	2 97
" " 1-lb. cans	51
" " 1-lb. " rifle	70
Dupont's " 50-lb. drum	22 45
" " 25-lb. kegs	11 30
" " 12½-lb. kegs	5 80
" " 6¼-lb. kegs	2 97
" " 1-lb. cans	51
Shot.	
Dropshot, sizes smaller than B, 25-lb. bags, per bag	$1 60
Drop shot, B and larger sizes, 25-lb. bags, per bag	1 85
Buck Shot, 25-lb. bags, per bag	1 85
Chilled Shot, 25-lb. bags, per bag	1 85

ANVILS.

Trenton, 70 to 80 lbs	9¾c per lb
Trenton, 81 to 150 lbs	9c per lb

AUGERS.

Boring Machine	60&10&5%
Irwin's	40&10%
Carpenters' Nut	60&10&5%
Hollow: Ives' New Pattern	25%
Bonney's—list $30.00	75&5%
Stearn's, No. 1 *doz.*	$42 00
Stearn's, No. 3 "	33 50
Post Hole.	
Dalbey, 8-inch per doz.	$ 5 75
Digwell, 8-inch "	13 00
Howe's, 6 and 8-inch "	11 00
Iwan's Improved	40 & 5%
Vaughan's, 4 to 9-inch per doz.	6 50
Rafting.	
Snell's	50&5%
Ship.	
Ford's, with or without screw	40-5%
Snell's, " " "	40-5%

AWLS.

Brad, handled per doz.		$0 28
shouldered, ass'd, 1 to 4 per gr.		95
patent, asst'd, 1 to 4	"	90
Harness, common	"	1 10
patent	"	90
Peg, shouldered	"	95
patent	"	40
Scratch, No. 2, handled	"	4 40
No. 1, socket handled per doz.		1 15
No. 20 Hurwood	"	2 00
Sewing, common per gr.		90
patent	"	90

AXES.

Boys', Handled:	
Camp Fire, 3-lb., per doz	$6 25
" " 4-lb., freighters', per doz	7 85
Cast Steel, good grade, pr. dz.	5 80
Pioneer, per doz	7 00
Broad:	
Peerless	40&5%
Red Warrior, per doz	$27 00
Firemen's, per doz	1 50
Handled:	
Pioneer 3 in. to 4 in. base, doz	10 25
For 3½ in. to 4½ in. Adv. base	25
For 4 in. to 5 in. Advance base	50
For 4½ in. to 5½ in. Adv. base	75
Single Bitted (without handles)	
Gladstone, per doz 3 to 4 lbs	$8 50
Hubbard's conc. " "	6 75
Hunt's " "	6 75
Lippincott's " "	6 75
Mann's " "	6 75
Pioneer " "	7 25
U. S. A. " "	9 00
Valley Forge " "	6 75
Second Quality " "	6 50
Maricopa " "	

The above price of 3 to 4 lbs. is the base price.
3½ to 4½ lbs. advance 25c.
4 to 5 lbs. advance 50c.
4½ to 5½ advance 75c.

Double Bitted (without handles):	
Lippincott's 3 to 4 lbs per doz	$9 50
Mann's " " "	9 50
Pioneer " " "	9 25
U. S. A. " " "	11 00
Valley Forge " " "	9 50

The above price of 3 to 4 lbs. is the base price.
3½ to 4½ lbs. advance 25c.
4 to 5 lbs. advance 50c.
4½ to 5½ lbs. advance 75c.

BALANCES, SPRING.

Frary's	50%
Pelouze	20%

BAGS, PAPER NAIL.

Pounds	3	5	10	16	20	25
Per 1,000	$1 60	1 85	2 60	3 40	3 90	4 75

BARS, CROW.

Pinch or Wedge Point	cwt. $2 95

BASKETS.

Galvanized Iron—	½ Bu	1 Bu	1½ Bu
Per Doz	$4 00	5 50	7 00

BEAMS—SCALE.

P. S. & W. Co	40%

BEATERS.

Carpet, Rattan per doz	$2 40
Raymond's Steel Wire " "	80
Woven Wire, No. 4 " "	1 10
Egg.	
Dover Pattern per doz.	$0 70
Genuine Dover "	0 90
Mammoth Dover "	1 75
Lightning "	0 84
Lyon's (standard size) "	1 75
Whip, French "	1 35
Spiral "	0 40
Spoon "	0 40
Surprise per gro.	1 45

BELLOWS.

Blacksmiths'	70&5%
Hand, 8 in. per doz.	$ 6 85
10 in. "	8 40
Molders', 12 in. per doz.	13 00

BELLS.

Call.	
2¾ in. nickeled bell per doz.	$ 1 35
2¾ in. " brass bell "	2 60
3 in. " " " "	7 50
3 in. " silver alloy bell, per doz.	16 50
4½ in. " brass bell and base per doz.	14 50
Cow.	
Ordinary Goods	70&5%
High Grade	60&10%
Jersey	70&10%
Door.	
Bigelow Automatic per doz.	$9 50
Rotary.	
3 in. bronzed iron bell "	5 25
3 in. nickeled " " "	7 50
3½ in. " " " "	9 00
Hand.	
Hand Bells, Polished	60@60&10%
White Metal	50%
Nickel Plated	40%
Swiss	60&5%
Silver Chime	33⅓%
Miscellaneous.	
Church and School, Steel Alloy, 50, 10 & 5%	
Farm, lbs. 40 50 75 100	
Each. $1 10 $1 30 $1 85 $2 65	

BEVELS—TEE.

Stanley's, rosewood handle, new list	40&5%
Stanley's Iron handle	40&5%

BINDING—OIL CLOTH.

Zinc	75, & 10%
Brass	75%
Brass Plated	75 & 10%

BITS.

Auger.	
Extra Double Spur	70&10%
Ford's Car and Machine	40&10%
Ford's	40&5%
Ford's Ship	40&5%
Irwin	45%
New Jenning's	50, 10&10%
Russell Jenning's	35&10%
Clark's Expansive	50, 10&5%
Steer's " Small, new list	$22.00
Irwin Car	45%
Snell's Car	60&5%
" Ship	40&5%
Ford's " Auger Pattern Car	40&5%
Center	40&10%
Countersink—	
Wheeler's per doz.	$1 50
American Snail Head "	0 70
" Rose " "	0 80
" Flat " "	0 70
Buck Bros'. Flat "	2 60
German " "	0 70
Dowel, New Jennings	40&10%
Gimlet—	
Standard Double Cut	50&5@50&10%
German Pattern per doz.	$0 40
Gouge "	0 80
Spoon "	0 80
Countersink "	1 30
Reamer—	
Buck Bros.' ½ Round. "	2 75
" " Square "	2 50
Standard ½ Round "	0 75
" Square "	0 75
German Octagon "	0 75
Screw Driver—	
Round Shank "	0 48
" " extra quality "	1 40
Square Shank "	1 10

BLACKING—STOVE. (See Polish.)

BLADES—SAW.

Butchers'—	
Standard ¾ & 1¼in	60&5%
Clock Spring	60&5%
Star	30%
Hack—	
Disston's	25&5%
Griffin's	25&5%
Star	30%
Wood—	
Jackson's per doz.	$2 25
Disston's—No. 6, 16, 26 & 045, $4 20; No. 11, $6.30.	
W. M. & Co.'s No. 20 per doz.	$5 50

BLOCKS.

Snatch—	
Wooden	55&10%
Steel	40&10%
Tackle—	
Wooden	70&5%
Steel	50, 10&5%

BOARDS.

Stove	40%
Wash—	
Anchor per doz.	$1 60
Globe "	2 10
Banner "	2 60
Crystal "	3 15
Brass King "	3 15
Nickel Plate "	3 15
Enamel King "	3 15

BOBS—PLUMB.

Carpenters', 8½ oz. iron pr dz.	$0 65
1½ lb. " " "	1 60
2¾ lb. " " "	1 80
13 oz. lead "	3 00
6½ oz. brass "	3 30
Mason's, 3 lb. lead "	4 00

BOILERS—FARM.

Profit	30&5%
Solon	35&5%

BOLTS.

Carriage, Machine, Etc.	
Carriage, ⅜x6 and sizes smaller and shorter	75%
Carriage, sizes larger and longer than ⅜x6	70@10%
Machine, ⅜x4 and sizes smaller and shorter	75&5%
Machine, sizes larger and longer than ⅜x4	75%
Elevator	50-10&5%
Plow	60&5%
Stove	60%
Tire	72½&5%
Wagon Box Strap	70&10%
Mortise Door—	
Gem	50-10&5%
Ives'	50&10%
Barrel—	
Cast	50%
Wrought	50&5%
" Bronzed	75&5%
Flush, Wrought, B. K.	40&5%
Spring—	
Wrought	75&10%
" Brass	75&10%
Square—	
Cast	40%
Wrought	60-10&10%

BORERS.

Angular, Miller's Falls, per doz	$12 75
Bung, Common Ring with Handle—	

Inches	1½	1¾	2
Per doz	$6 00	6 90	8 1

BORERS—CONTINUED.

Enterprise Mfg. Co., No. 1 List $1.50; No. 2, $2.00 each....25-10&5%

BOXES.

Nail, No..... 5 10 20
Per doz.....$3 65 10 50 13 00
Wire—
New Langdon.....15&5%
Olmsted's 15%
Stanley's.....30%
Seavey's .....per doz 8 00
Twine, Nos... 30 30 25 121
Per doz $1 50

BRACES.

Common Ball.....$1 35@1 45
Barbers' Pattern ..... 50&10%
Fray's Gen. Spofford's.....50&10%
" No. 66 to 146.....50&10&7½%
P. S. & W. Co.'s Peck's Adjustable.....50-10&5%

BRACKETS.

Hay-Rack, Wenzelmann's No. 1, $12.60; No. 2, $12.20 per doz.
Shelf—
Cast Iron, Japanned.....$0, 10, 10%
Stanley's Wrought Steel..... ..... 70-10&2½%
Wire.....75-10&5%

BROILERS.

Wire .....70&10%
Crown, Self-Basting, No.80..doz. $2 90

BUCKETS.

Pump Rubber—
Wychoff.....per gr. $4 75
Cooper..... " 5 50
Champion..... " 7 50
Victor ..... " 9 50
Star..... " 5 00
IXL..... " 6 75
Well—
Galv'd Qts..... 10 12 14
Per doz $2 75 3 00 3 25
Wooden, top ear, plain, per doz 3 60
" " swivel " 4 85
" side-strap, plain " 3 70
" " swivel " 5 00

BUCKS, SAW.

Folding .....per doz $2 10

BURS, RIVETING.

Copper Burs Only.....35-10&5%
Tinners' Iron Burs Only.....70%

BUTTS.

Cast-Iron.....65&10%
Wrought Brass.....20%
Wrought Steel Bright—
Nos. 800, 804, 808, 810, 814 and 834 ..... 75&10%
Nos. 838, 840 and 842 .....75-10&10%
Nos. 828 and 828.....80-20&10%
Wrought Steel, Japanned—
Nos. 731 and 727.....70&10&10%

CALIPERS.

Double .....40&10%
Inside and Outside.....40&10%
Wing.....40&5%

CALKS.

Logger's Boot,(Lufkin R. Co's.) .....per M $3 65
Toe.
Shoenberger.....per lb. 5c
Bessemer ..... " 5½c
American ..... " 7½c
Swedes..... " 8½c

CANS.

Cheese Factory Can Stock—
Gallons.... 15 20 30 40
Per set....$3 40 $3 45 $3 70 $4 90
Milk
Elgin Pattern,
Nos..... 808, 810, 88.
Gal. 8 10 8
per doz...$21.50 $24.50 $22.10
New Elgin Pattern,
Nos. 106 108 110
Gal. each, 5 8 10
Per doz., $16.75 $18.50 $19.85
Iowa Pattern.
Nos. 608 610
Gal. 8 10
Per doz $20.50 $21.50
New York Pattern,
Nos. 908, 910,
Gal. each, 8 10
Per doz. $25.15 $26.95
Oil and Gasoline—
1 Gal. glass, Daisy....per doz. $1 95
1 " cushioned " 3 15
Star, gals..... 1 2 3
Per doz..... $1 35 $2 30 $3 15
Per doz.
Sterling Tilting....5 gallon... $8 60
"High C" Pump...5 " ... 12 00
Eureka Pump.....5 " ... 9 25
Wood Jacket.....50-10&10%

CAPS—GUN.

See Ammunition.

CARRIERS.

Hay—
Myers' Imperial.....each $3 50
" Clover Leaf..... " 3 50

CARTRIDGES.

See Ammunition.

CASTERS.

Acme—Ball Bearing.....35%
Bed.....60, 10&5%
Common Plate—
Brass wheel.....60&10%
Iron and porcelain wheel.60, 10&5%
Philadelphia Plate.....70&5%
Martin's.....40-10&5%
Payson's.....70&10%
Tucker's—Wood &iron wheel..25&5%
" Rubber wheel..... 15%

CATCHERS—GRASS

Lieder's No. 1..... ...per doz, $6 25
Eureka..... ..... " 4 25
deal No. 4..... 50

CHAIN AND CHAINS.

Breast Chains—
Doubleslack.....doz. pairs $5 75
With Covert snaps " 5 00
" slide..... " 3 25
Without slide..... " 2 85
Bright Ox Chains—
5-16in. $5 65: ⅜in. $5 40 per 100 lbs.
Cable Coil Chain—
Inch..... 3-16 ¼ 5-16 ⅜
Per 100 lbs...$8 75 $6 15 $5 00 $4 25
Inch ..... 7-16 ½ ⅝ ¾
Per 100 lbs...$4 05 $3 90 $3 80 $3 70
Inch ..... ⅞ 1 1¼
Per 100 lbs.... $3 60 $3 60 $3 60
Cable Log Chain—Advance 35c per 100 lbs. on Cable Coil.
Cow Tie Chains—
American 2 toggle..... 50%
" toggle and snap... 50%
" open and closed ring..... 50%
Halter Chains—
American, new list.....33⅓%
German.....60-10&5%
Niagara, new list.....40&5
Triumph " 30%
Picture Chains—
Light Brass, 2 ft.....per doz. 65c
Heavy " 3 " ..... " 75c
Pump Chain—Galvanized per 100 lbs..... $4 75
Safety Chain—Brass..... ....60&10%
Special Steel Loading Chain—
Inch ¼ 9-32 5-16
Per 100 lbs.....$16 00 $13 50 $12 50
Stretcher Chains—
5-16 in., $8.50—⅜in., $7.75 per 100 lbs.
Tie-Out Chains—Browns.....70&10%
Trace Chains—Western Standard—
6½— 6-2.....per pair 27c
6½— 8-2..... " 31c
6½— 8-3..... " 30c
6½—10-2..... " 35c
7 — 8-2..... " 35c
7 —10-2..... " 39c
7 —10-1..... " 44c
7 —10-0..... " 55c
Add 2c per pair for Hooks.
" 2c " for Twist Link
Wagon Stay Chains—
Inch ¾ 5-16 ⅜
Per 100 lbs. $6.50 $6.00 $5.50

CHALK-CARPENTERS'.

Blue.....per gross 58c
Red..... " 48c
White..... " 38c
Common White Sch'l Crayon..... " 5½c

CHARCOAL.

In barrels .....per bu. 21c

CHECKS-DOOR.

Blount 30%
Blum-Jap'd, $6.25; Brzd., doz... $7.00
Columbia.....50, 10&5%

CHIMNEY TOPS.

Iwan's Volcano.....50%

CHISELS.

Box—
Inches..... 10 12 14
Round...per doz. $2.10 $2.25 $2.75
Flat.....per doz. 2.85 3.60 4.20
Cold—
Good quality.....per lb. 12@ 20c
U.S.A., extra quality..per lb. 28c
Socket, Framing and Firmer—
Barton's..... 30%
P. S. & W. Co's..... 70%
For beveled back, add..per doz..... 60c
Tanged, Firmer—
P. S. & W. Co's.....35&5%
With Handles add...per doz. 60c
Choppers, Enterprise Meat—
No. 12..... $2 75
No. 22..... 4 50

CHUCKS-DRILL.

Standard Tool Co.'s 40%
Goodell's, for Goodell's Screw Drivers.....per doz. $6.25
Yankee, for Yankee Screw Drivers..... ..... 5.00

CHURNS.

Anti-Bent Wood, Gal.. 5 7 10
Each $3.90 4.15 4.40
Belle, Barrel.....70&5%
Common Dash, Gal.... 4 5 6
Per doz..... $7.75 8.50 10.50
Hero.....70%
Union, Gal..... 5 7 10
Each $3.65 3.90 4.75

CLAMPS

Adjustable—Martin's 40%
Carpenters'—Steel Bar..... 30%
Carriage Makers'—P. S. & W. Co.'s..... .....40, 10&5%
Hose—
Sherman's, brass, ¾ in., ...per doz. 33c
Double, brass, ¾ in...per doz. 65c
Saw Filers—
Disston's list, $30.00..... 30%
Stearn's, No. 0, $3.50, No. 1, $11.50, No. 3, $5.50 doz.
Wentworth's..... 40%

CLAWS-TACK.

Cast, wood hdle...per doz., 45@ 60c
Forged steel, wood handle .....per doz. 80c
Solid Steel.....per doz. $1.60
Giant..... .....per doz. .60

Drain— CLEANERS.

Iwan's Adjustable.....50%
Iwan's Stationary.....40%
Pot—Wire.....per doz. $0.45
Side-Walk—Steel.....per doz. 1.15
XLCR.....65&5%

CLEAVERS.

Family—Ajax, In..... 6 7 8
Per doz $5.50 5.75 6.25

CLEVISES.

Malleable.....per lb. 3⅝c

CLIPPERS.

Bolt..... $1.90@4.75

CLIPS.

Axle.....65&5%
Damper—
Standard .....per doz. $0.70
Troy ..... " .38
Hame..... " .20

Emery— CLOTH.

Ajax.....50&10%
B. & A.....50%
Hardware Wire—full rolls (100 ft.)
2 to 8 mesh black, per 100 sq. ft. $1.85
9 to 12 " " " " 2.15
2 to 8 " galv, " " 2.70
7 and 8 " " " " 2.25
An extra charge is made for 50 ft. lengths, and a still further advance for smaller pieces.
Screen Wire—
12 mesh, painted, per 100 sq. ft. $1.30
14 " " " " 1.85

COCKS AND FAUCETS.

Compression Plain Bibbs..60-10-2½%
Lever Bibb Cocks 70%
Compression Hose Bibbs.....60-10%
Telegraph Faucets,(new list)...50-5%
Racking Cocks (new list) 70-5%
Compression Lock C'ks(n'w list)70-5%
No. 65 Brass Liquor Cocks, doz. $9.15
Andrew's Brass Faucets 70%
Angle Plug Faucets, per doz....$0.85
Milk Can Faucets, per doz., $2.60-4.20
Petroleum Faucets (new list)....70%

COFFEE MILLS.

Enter. Mfg. Co., list Jan 17, '95...35%
Parker's.....50%
Arcade.....60&10%

COLLARS--STOVE PIPE.

Inches 5 6 7
Plain Tin....per gr. $2.50 $2.80 $3.75
Japanned Tin, " 3.90 4.20 5.40
Lacquered Brass" 3.30 3.60 4.80

COMBS--CURRY.

Nos. 000 20 221 330 417 416
Per doz. $0.32 .80 1.00 .95 .80 1.00
Nos. 531 533 530 535 545 390
Per doz. $0.96 1.20 1.10 1.65 1.40 1.30

COMPASSES.

Carpenter's..... 70%
Pencil--Faber's.....per doz. $1.00

COPPER—SEE METALS.

COPPERS.

Soldering--1 to 2 lb.....per lb. 25@29c
2 lb. and larger..... " 23c

CORD.

Picture--White Wire--List October 1900.....80&10%
Sash--
Baltic Braided Flax...per lb. 22 c
India Hemp, cable laid " 13 c
" " hawser " " 12 c
" " plain " " 13½c
Italian " cable " " 21½c
Russian " " " " 17 c
Samson, white " 31½c
" spot " 30½c
SilverLake, white 7-32 in., 31 c
" " " 8-32 in., 31 c

CORKSCREWS.

Humason & Beckley.....33⅓%
Walker's.....33⅓%
Williamson's Regular.....50%
Williamson's Forged Worm.....50%

COTTERS--SPRING.

All sizes—new list..... 85&20%

COUPLINGS--HOSE.

Brass .....per doz. $1.00
Brass Plated..... " 85

COVERS, WAGON--SEE TENTS.

CRADLES--GRAIN.

Morgan's Grapevine...per doz. $22 25

CRAYONS--SEE CHALK.

CROW BARS.

Pinch or Wedge Point, per 100 lbs..... $3 40

CUTTERS.

Meat—
Enterprise Nos. 5, 10, 12, 22, 32, and 42..... .....25%
No. 100, list, $18.00.....40&10%
Nos. 2 and 4.....35%
Ideal.....per doz. $9.75
Universal....No. 1 2 3
Per doz.....$10.75 $13.00 $18.00
Pipe-Stanwoods No. 1 2 3
Each.....$ .85 1.50 4.00
Slaw and Crout--
3-knife Crout.....per doz. $9.75
1 " Slaw..... " 1.65
2 " " ..... " 2.25
Washer..... " 7.75

DAMPERS--STOVE PIPE.

Standard.....50&10%
American.....40&10%

DIES--STOCKS AND

Discount.....40&10%

DIGGERS.

Post Hole—
Acme.....per doz. $8.75
Atlas.....per doz. 7.75
Eagle .....per doz. 6.50
Eureka.....per doz. 6.25
Hercules.....per doz. 9.75
Iwan's Split Handle..per doz. $6.00
Iwan's Perfection....per doz. 8.00
Ryan's .....per doz. 17.00

DIGGERS—POST HOLE.

Atlas..... .....per doz. $8.50
Eagle..... " 6.25
Eureka..... " 6.50
Hercules ..... " 10.25
Ryan's..... " 17.00
See also Augers—Post Hole.

DOORS--SCREEN.

⅞ in. 4 panel painted per doz. $ 6.85
1⅛ " " " 7.50
1⅛ in. 3 panel natural pine, fancy.....per doz.. 11.50

DOOR HANGERS—BARN.

Single Flange, D. B. Rail, ...per 100 ft. 1 80
Novelty Check Back, ... 3 in 4 in 5 in 6 in
Per doz. pairs. $2.60 $3.90 $4.95 $6.25

DRILLS.

Bit Stock.....60%&65&5%
Blacksmith's Twist.....60%
Breast—
Common.....each, $2.25
Millers' Falls..... " 2.10
Hand--
Goodell's Automatic--per doz.
No. 01 No. 02 No. 3 No 20
$7.75 $12.50 $14.25 $11.00
Goodell's Single Gear per doz. $16.00
Millers' Falls " " " 12.50
" " Double " " 15.00
Reciprocating—
Goodells'.....per doz. $17 00
Bit Stock.
Standard List....60&5%@60%@10%

DRIVERS--SCREW.

Hurwood .....40&10%
Standard.....65&10%
Ajax.....70&5%
Champion.....50%
" Pattern.....75&5%
Clark's Interchangeable.. .... 33⅓%
Edison.....60%
Reed's Lightning.....50%
Goodell's Spiral.....50&10&5%
Yankee Ratchet.....50%
" " Spiral.....50&10&5%

ELBOWS.

Conductor.....80%
Adjustable Stove—In. 5 6 7
Smooth.....per doz. $0.95 0.95 1.40
Plan'd..... " 2.10 2.25 3.00
Corrugated Stove—In. 5 6 7
Smooth.....per doz. $0.95 .95 1.40
Pol'd ..... " 1.70 1.75 2.60
Plan'd..... " 2.60 2.85 3.50
Four-Piece Stove—In. 5 6 7
Smooth....per doz. $0.57 .60 .98
Pol'd..... " 1.00 1.05 1.50
Plan'd..... " 1.50 1.70 2.60

EMERY--TURKISH.

Size .....5-lb. pkgs. ½ kegs, kegs.
No. 50 to 150, ⅝ lb. 6½c 4½c 4½c
Flour..... " 5½c 3½c 3½c

ENAMEL—IRON.

English, ½-pt. cans...per doz. $1.50
Nubian, " " ... " 1.80
O. V. B., " " ... " 1.25
Peerless 1 50

EXTRACTORS--PIG.

See Forceps, Pig.

EYES.

Bright Wire Screw—See Goods, B. W.
Drifting Pick.....60&10%
Hooks and--
Brass.....60&5%
Iron .....65&10%

FASTENERS, STORM SASH.

Moore's.....per doz. $0 80
Schroeder's..... " 1 50
Sensible..... " 1 10

FASTENERS, BLIND.

Zimmerman's.....Net

FILES AND RASPS

Black Diamond.....70&10%
Disston's .....75&10%

FILTERS.

Improved Natural Stone. $3 50@13 50
Subject to large discounts.

FORCEPS—PIG

Barber's.....per do $7 25
Superior..... " 4 75
Whisson's Imp..... 6 00

FORKS

Barley—
Steel.....60&30%
Wood, 4 tines, $5.50; 6 tines, $6.50 doz
Coal 40%
Coke 40%
Cottonseed 40%
Hay—
Diamond, 2 tine.....50, 10&5%
" 3 " .....60&5%
" 4 " .....60½&10%
Golden Eagle, 2 tine .....60½&10%
" " 4 " .....60&1
Digging..... .....60&10%
Scoop.....33⅓

FORKS—CONTINUED.

Header—
Diamond, 2 tine.....67½&10&5%
" 3 " 65%
" 4 " 65%
Golden Eagle, 4 tine.....10&10&5%
Manure—
Diamond.....60, 15&2½%
Golden Eagle.....66⅔&10%
Ore.....40%
Spading—
Diamond.....70&2½%
Golden Eagle.....70&2½%

Hack Saw— FRAMES
Crown.....per doz., $ 6 25
Miller's Falls..... " 10 00
Star..... " 2 85

FREEZERS—ICE CREAM
Arctic—Qts... 1 2 3 4 6
Each.....$1 10 1 30 1 50 1 80 2 30
Qts..... 8 10 12 15
Each.....$2 95 3 80 4 50 5 20
White Mountain—
20 qt.—New platform, each...$19.10
25 qt.— " " " ...22.00
25 qt. Sampson Power " ...42.00
40 qt. " " " ...57.00

GAUGES.
Butt and Rabbet.
Stanley R. & L. Co.'s..20&10&2½%
Cream Pail, Fairmont, per doz..$3 75
Marking, Mortise, etc.....
.....50&10%@50&10&5%
Saw—Atkin's agle. 55c, dbl. 80c pr doz.
Wire.
Disston's.....35%
P. S. & W. Co.'s.....20%

GIMLETS.
Discount.....40@40&10%

GLASS—WINDOW.
Single and double strength, all sizes..... 90&15%

GLASSES—LEVEL.
Stanley R. & L. Co.....50&5%

GLUE.
Bulk.
B Amber.....per lb 9¾c
A White.....per lb 12½c
H. S. Amber.....per lb 17 c
Liquid.
Eagle.....40 %
LePage's—
List "A".....37½%
List "B".....33⅓%
List "C".....25 %

GOODS.
Bright Wire.....90&5%

GREASE, AXLE.
Wood Boxes.
Diamond.....per gr. $5.00
Frazer's..... 9.25
Hub Lightning..... 5.25
Paragon..... 6.75
Wood Pails.
Frazer's, 15 lb. 75c, 25 lb. $1.30 each.
Hub Lightning, 15 lb. 52c, 25 lb. 68c each.
Tin Cans
Chamellene Graphite.
1 lb. per gross.....$ 9 50
3 lb. per gross..... 25 00
5 lb. per gross..... 37 00

GRIDDLES
Soapstone.....40&10%

GRINDSTONES
Family—In..... 7 8 9
Per doz.....$8 25 9 00 10 50
Loose.
Per ton.....$20 00@$21 00
Mounted—
Ball Bearing..... 1 2 3
Each.....$3 40 3 25 3 15
Common Bearing.. 1 2 3
Each.....$2 90 2 70 2 55

HAFTS—AWL
Brad—Common.....per doz., $0.18
Peg—
Common..... " 21
Patent, plain top..... " 48
" leather top .. " 52
Sewing—
Common..... " 21
Patent..... " 52

HALTERS
Jute Rope.....per dz $0 80
Sisal Rope..... " 1 95
Web ..... " 2 10
Leather, rope tie..... " 6 25
" leather tie... " 8 25

HAMMERS—HANDLED
Blacksmiths' Hand
Maydole's.....40&10%
Engineers'—
Maydole's.....40&10%
Farriers'.
Maydole's.....35&5%
Machinists'.
Maydole's.....40&10%
Nail.
Ajax.....per doz $5 75
Calumet..... " 3 40
Cast.....per doz $1 10@$1 50
Maydole's.....30&7½%
Vulcan.....35&5%
Riveting.
Maydole's.....35&5%
Shoe.
Cast.....per doz 75c
Tack.
All Iron.....per doz $0 35
Pol'd Iron, Hickory hdl " 0 53
Mall. Iron, Inlaid..... " 1 50
Magnetic 1 2 3
Per doz..... 70c 80c 95c
Magazine.....per doz $4 75

HAMMERS—HEAVY.
Heavy Hammers and Sledges.
Under 5 lbs.....70&10%
5 lbs. and over.....75&5%
Masons'—
Single & Double Face.....70&10%

Auger. HANDLES.
Common Ass'd.....per doz $0 36
Peck's Adjustable.... " 2 10
Roger's " .... " 4 15
Ives' " ....per set 1 25
Axe.....40%
Chisel.
Hickory, Tanged Firmer, Assorted, 24c; Large, 26c per doz.
Hickory, Socket Firmer, Assorted, 18c: Large, 21c per doz.
Applewood, Tanged Firmer, Assorted, 27c; large, 35c per doz.
Applewood Socket, Firmer, Assorted.....per doz 24c
Coal Pick.....40%
Drifting Pick.....40%
File, assorted 13c. large 16c per doz.
Hammer.
Adze Eye.....per doz 42c
Blacksmiths'.....per doz 45c@65c
Machinists'..... " 39c@58c
Hatchet.....per doz 42c
Hay and Manure Fork.....40&10%
Hoe and Rake.....40&5%
Saw, Plain 73c, Varnished 68c per dz.
Screw Driver, Assorted 42c, Large 48c per doz.
Shovel and Spade.....40%

Barn Door—HANGERS
Cronk's Automobile Loose Axle.....60%
Cronk's Automobile Roller Bearing.....60&20%
Cronk's Loose Axle Endless Run.....60&10%
Cronk's Roller Bearing.....70&5%
King.....per doz. prs., 5 00
Monarch.....60&10%
"Never Jump" Hinge.....50&10%
Peerless, Loose Axle.....60&10%
Perfection, Roller Bearing..70&5%
Phœnix. Roller Bearing....70&5%
Prouty No. 315, per doz. prs., $5 44
Rival..... " " 3 90
Superb..... " " 6 25
Safety Flexible " " 5 44
Wagner's Adjustable.....70@10%
Warehouse.....60%
Conductor Pipe—
Iwan's Perfection.....50%
Parlor Door—
Acme.....per set $3 75
Ives' Improved..... " 2 50
Lane's Standard..... " 3 50
" New Model.... " 2 80
Prouty..... " 3 00
Richards'.....40-10&5%
Eave Trough—
Baker's.....per gr., $2 35
Imperial.....35%
Wire.....35%

HASPS.
Hinge, Wrought.....70-10&10%
With Staples—See Staples.

HATCHETS.
Ajax.....40%
Blood's.....40%
Cast Claw.....per doz $1 50@$1 75
Cast Shingling.... " 1 20
Duffy's Barrel.....per doz 17 50
Germantown.....35%
Hammond's.....35%
Roger's Ideal.....per doz $5 75
Underhill's Star Lath.....40%
U. S. A.....25%

HAY RACK BRACKETS.
Wenzlemann's No. 1, per doz...$12 60
" No. 2, " ... 13 20

Blind. HINGES.
Clark's Gravity, per doz sets....80c
Parker's..... .....65%
Shepherd's Noiseless, for Wood casing.....doz. $1 05
Gate.
Clark's, 1 2 3
Hgs & Lchs, dz.. $2 35 $2 60 $3 60
Hinges Only, " .. 1 70 1 90
Latches Only, " .. 0 70 0 75
Knuckle.....per doz prs $6 00
Leed's..... sets 6 75
Superior..... prs 9 25
Spring.
American.....25%
Bommer Bros. Ball B'g Floor ...35%
Bommer Bros. Spring Hinges .40%
Chicago.....25&5%
Clover Leaf.....per gro $9
Columbia Dbl. Acting....40&10&5%
Gem.....25%
Ideal Detachable,....per gro $12 00
New Idea..... " 9 60
Oxford.....20%
Wrought Iron.
Light Strap Hinges ....80-5-10&10%
Heavy Strap Hinges80-20-10-10&10%
Light T Hinges.....75-10-5-10&10%
Heavy T Hinges.....75-5-10&10%
Extra Heavy T Hinges80-20-10&10%
Cor. Heavy Strap ...80-20-10-10&10%
Cor. Ex. Heavy T .....80-20-10&10%
Hart's Heavy Strap.....50&10%
Hart's Ex. Heavy T.....50&10%
Screw Hook and Strap.
6 to 12in.....per 100 lbs. $3.05
14 to 20in..... " " 3.40
22 to 36in..... " 3.15
Screw Hook and Eye.
⅜in.....per 100 lbs. $6.25
⅝in..... " " 7.25
⅞in..... " 9.00

HOES.
Garden.....70&10%
Grub:
Ajax.....60%
Extra.....65&10%
Hazel.....per doz $5 75
Ladies' and Boys'.....70&12½%
Mortar.....70, 10&10%
Planter's Eye.....62½%
Weed.....66⅔, 10&10%

And Eyes. HOOKS.
Brass.....50&10&5%
Iron.....65&10%
Awning.....per gro $1 80
Belt
Brown's.....70&5%
Jones'.....65&5%
Bench—See Stops, Bench.
Box, In. 6 8 10 12
Doz.. $1 25 $1 60 $1 70 $2 25
Humason & Beckley's...pr dz $2 40
(See Goods, Bright Wire.)
Bush
Common Axe Handle .....per doz $7 00@$8 50
Hamilton Pattern.....per doz $7 25
Chain—In. ¼&5-16 ⅜ 7-16 ½
Per 100 $7 50-7 75 $9 50 $11 25 $12 00
Clothes Line.
Japanned.....per doz 21c@22c
Galvanized..... " 35c
Coat and Hat.
Cast Iron.....per gro 72c@$1 00
Gem Wire.....70&10%
Conductor.
Malleable.....50&10%@50&10&5%
Wrought.....40&10%@50%
Corn.
Common, unpolished, per doz. $1 40
" polished... " 1 80
"Cut Easy," .....per doz. 2 75
Clyde's, ... " 3 00
Gate.—See Goods, Bright Wire.
Grass.
Common, Nos. 2 3 1
Per doz..... $1 75 $1 80 $1 90
German.....per doz 1 90
Little Giant..... " 3 10
Wood's..... " 1 30
Hammock.
With Plate..... " 31c
With Screw..... " 31c
Lambrequin or Drapery...per gro 21c
Picture.....50%@50&10%
Potato and Manure.....60&15%
Screw, Brass.....80&20%
(See Goods, Bright Wire.)
Seat Spring.....per lb 5½c

HOOPS—TUB.
Ever Ready..... per case $1 65

HOSE—GARDEN.
3 ply ¾ in. 35 lb. pressure per ft..5½c
3 " ¾ " 50 " " " ..7½c
3 " ½ " 60 " " " ..7 c
3 " ¾ " 60 " " " ..8½c
4 " ½ " 80 " " " ..8½c
4 " ¾ " 80 " " " ..10 c
6 " ¾ " 125 " " " ..11½c
8 " ¾ " 150 " " " ..31 c
Cotton ¾ in. 75 lb. pressure per.. c
" ¾ " 150 " " " .9c

Boss. HUSKERS.
Nos. E A B P
Dz.$1 85 $2 00 $1 95 Gr.$5 90 $5 20
Nos.2000 3000 4000 O OX
Gr.$3 10 $6 75 Dz.$1 15 $2 20 $1 65
Brinkerhoff's.....per gr 14 50
Harrington.....per gr 4 20
Ideal—Nos. 102 101 100
Per doz..... $1 35 $2 50 $2 75
Johnson's.....per gro 7 75

IRON.
See Metals—First column.

IRONS.
Curling.
Common.....per doz 33c@48c
Princess.....per doz $0 60
Yale..... " 0 84
Oxford..... " 1 10
Ruby..... " 1 50
Tourist, Folding ..... " 0 90
Pinking..... " 0 60
Plane.
Wood Bench.....20&5%
Stanley R. & L. Co. (new list)35&5%
Sad.
Charcoal.....per doz $10 75
Common, Polished, per 100 lbs 3 50
" Nickel Plated, " 4 75
Chinese Polishing.....per doz 7 60
Laundry, No. 1, $5 75; No. 2, $6 25 per doz.
Mrs. Pott's.
No. 50 J, Enterprise...per set 79c
No. 55 J, " ... " 76c
No. 50 T, " ... " 82c
No. 55 T, " ... " 79c
No. 50, Howells'..... " 72c
No. 55, " ..... " 69c
Tailors' Sad.....per lb 4½c
" Geese..... " 4½c
Tuyere.
Single Duck Nest.....per doz $5 25
Double " " ..... " 6 25
Sutton.....each 2 60

JACKS.
Locomotive.....75&5%
Wagon.
Meeker's.....per doz $4 25
Miller's No. 2..... " 7
Winner..... " 7

KETTLES.
Brass.....20%
Caldron.....50%
Copper.....per lb 27½c
Maslin.....65⅔%
Sugar.....50&5%

KNIVES.
Best Topping.
Clyde, 9-in. Scimiter Blade.dz $4 25
" 12-in. Straight " .dz 2 50
Cooper's Hoop.....15%
Corn.
Ajax..... " $2 10
Drawing.
Standard.....70%
Adjustable.....20%
Barton's Carpenters'.....10%
" Folding Handle....25&5%
Hay.
American, Sickle Edge...doz $10 25
Canton, Sickle Edge..... " 8 25
Heath's..... " 8 25
Iwan's Sickle Edge..... 10 00
Lightn'g, Holt's Genuine " 6 50
Lightning Pattern..... " 5 75
Wadsworth's Sp'r Point. " 8 75
Hedge.
Ajax, Heavy, $5 75; E Heavy, $7 75 per doz.
Mincing.
Common, Single .....per doz 42c
" Double..... " 65c
Streeter, 4 Blade, $1 30; 6 Blade, $1 90 per doz.
Putty.
Common.....per doz 84c
Goodell's.....per doz $1 30@$1 50
Russell's..... " 1 75@ 2 25

KNOBS.
Door, Mineral.....per doz 0 70
Porcelain..... " 0 80
Jet..... " 0 80

LADDERS.
Common Long.....per ft 9c@14c
Extension.....per ft 12c
Step.
Common..... " 7c
" With Shelf, add 10c.
I X L.....per ft 17c
Miller's Household. per ft 13c@15c

LANTERNS.
Bull's Eye Police.
3-in Flash Light.....per doz $6 00
2¾-in Regular..... " 4 00
3-in Regular..... " 5 00
Tubular, Beaver.....40&10&5%

LEADERS—CATTLE.
Nos. 1 2 3
Per doz.... $0 70 $0 85 $3 75

LEATHER—LACE.
Cut.....50&10%
Sides, Ex. Quality.....per sq ft 20c

LEATHERS—PUMP.
Valve and Plunger.....50%

LIFTERS.
Stove Cover.
Japanned.....per gro $2 75
Coppered..... " 3 00
Chilkoot..... " 4 50
Devore's..... " 5 50
Zero..... " 3 00
Transom, Payson's.....70&10%

LINES.
Chalk, Twisted in 20-ft hanks.
Nos. 15 14 13 12 11
Per doz.. 10c 12c 17c 22c 25c
Twisted in 50-ft balls.
Nos. 1 2 3 4
Per doz..... 24c 30c 35c 44c
Braided in 20-ft hanks.
Nos. 0 1 2
Per doz..... 23c 26c 28c
Masons', in 100-ft hanks...doz $1 00
Clothes.
60-ft Jute.....per doz $0 95
72-ft " ..... " 1 10
60-ft Sisal..... " 1 60
72-ft " ..... " 2 10
60-ft Cotton..... " 1 35
50-ft Braided Cotton..... 1 10

LINING—STOVE.
In Bricks.....per crate 42c

MACHINES.
Boring Without Augers. With Augers.
Ajax.....per doz $5 25 $6 75
Angular... " 3 25 5 00
Boss..... " 4 50 5 00
Upright... " 2 90 4 00
Leather Riveting.
Chicago, Pomeroy ....per doz $9 75
Excelsior..... " 3 50
Handy..... " 2 10
Little Giant..... " 3 10
Pony, Pomeroy..... " 8 00
Washing.
Boss. 1 2 5 3
Per doz.. $57 00 $63 00 $69 00 $60 00
Globe, No. 1.....per doz $53 00
O K Rotary..... " 55 50
Round Wayne..... " 36 50
U. S. Steel..... " 60 00

MALLETS.
Carpenters'.
Fibre Head, Small. Med. Large.
Per doz..... $5 00 $5 75 $6 75
Round Hickory.....per doz $1 75
" Lignumvitæ.... " 2 75
Square Hickory..... " 1 75
" Lignumvitæ .. " 2 25
Tinners'.
Applewood..... " 1 00
Hickory..... " 85
Hickory Sheet Iron. " 80

Door.
MATS.
National Rigid ..... 50, 10&5%
Queen Flexible 50%
Stove.
Standrd Quality ..... per gross $2 75
Best " (Pure) " 4 75
Wire Covered Asbestos, Ex. Heavy ..... per doz 1 00

MATTOCKS.
Ajax ..... 65&10%
Extra 60%

MAULS.
Iron, lbs. 10 13 16 18 21
Per doz. $3 15 $3 85 $4 45 4 75 $5 25
Wood face, lbs. 10 11 12
Per doz $4 75 $5 00 $5 25
Wood Choppers'.
Lake Super'r & Oregon Pat. 70&10%

MEASURES.
½ pk 1 pk ½ bu
Galvanized .. per dz $3 65
Japanned .. " $1 40 2 10 $2 60
Babbitt.
METAL.
Alm ..... per lb 8¾c
Best ..... " 23c
Common, No. 4 ..... " 6½c
Copper Mixed ..... " 18¾c
Magnolia Metal ..... " 19c
Tony ..... " 10¼c
See Metals—In first column.

MICA.
First Quality ..... 40, 10&5%
Second Quality 60%

MILLS—COFFEE.
Enterprise ..... 35&5%
National 30%
Parker ..... 50&10%@60%

MOPS.
Iris ..... per doz $3 15
Handled Cotton.
Lbs. ¾ 1 1¼ 2
Per doz .. $2 00 $2 35 $2 65 $3 25

MOWERS—LAWN.
Ball-Bearing.
In. 15 17 19 21
Each $7 50 $8 50 $9 50 $10 50
Champion.
In. 13 14 16 18 20
Ea. $2 30 $2 35 $2 35 $2 65 $2 75
Champion, High Chief.
In. 16 18 20
Each $4 00 $4 50 $5 00
Cheap Grades.
In. 12 14 16 18
Each $2 10 $2 10 $2 10 $2 20
Clipper ..... 50&10&10%
Girard, in. 14 16
Each $3 25 $3 50
Philadelphia.
All Styles Except A & E 60&10&10%
Style A ..... 50&10%
Style E, High Wheel .. 60, 10, 10&10%
Drevels 50%
All Day ..... Net Price

Horse Shoe.
NAILS.
Ausable 50%
Capewell 10%
Perfect ..... 40&5&
Putnam 10-5%
Star 35%
Picture.
Brass Head ..... 40&10%
Judd's ..... 40&10%
Brads ..... 60&10&10%
Furniture 40%
Wire.
Small Lots $2.25
Carload " 2.15
Cement Coated 2.10

NETTING—POULTRY.
Galvanized Before Weaving .80&20
" After Weaving ... 80&15
Cut Pieces ..... 65&5%

NIPPERS.
End Cutting.
P. S. & W. Co. ..... 40&5%
Stubb's Pattern ..... 40&10&5%
Hoof.
Heller's ..... 40&5%
P. S. & W. Co. ..... 40&10%
V. & B 40-5%

Hose.
NOZZLES.
Genuine Boston ..... per doz $2 15
Genuine Gem ..... " 3 15
Magic ..... " 3 40

NUTS—HOT PRESSED.
Square Blank.
In. ¼ ⅜ ½ ⅝ ¾ ⅞ 1
Lb. 9c 6c 4c 3½c 3¼c 3⅛c 3c
Square Tapped.
In. ¼ ⅜ ½ ⅝ ¾
Lb. 11¾ 7½ 5¼ 4½ 4¼
For 5 lb. boxes add ⅛c per lb. to above prices.

OILERS.
Chase Pattern.
Brass and Copper 35%
Zinc 60%
Engineers'.
Cannon 10%
Tin ..... per doz $2 00@$3 00
Machine.
Ajax ..... per doz 80 80
Copper Plated Steel .. " 1 50
Malleable Iron ..... 40&10&5%
Tin ..... per doz 55c@$1c

OPENERS.
Can, in. 10 12 14
Flat .... per doz $2 85 $3 60 $4 15
Round .. " 2 10 2 25 2 75
Can.
Detmonico ..... per doz 1 30
Never Slip ..... " 0 65

Crate, V. & B ..... " 5 75

OUTFITS—COBBLING.
Combination ..... per doz $11 50
Economical ..... " 4 90
Family ..... " 10 00

PADLOCKS.
Standard Wrought ..... 70&10&5%
Champion 50%
Eureka ..... 40&10&5%
Yale ..... 60&5%

Cream.
PAILS.
14-qt., Without Ga .... per doz $2 75
20-qt., " " .... " 3 25
20-qt., With Gauge .... " 4 20
Sap, 10-qt., Galvanized, $1 60; 12-qt., Galvanized, $1 85 per doz.
Stock, Galvanized.
Quarts. 14 16 18 20
Per doz ... $3 75 $4 00 $4 65 $5 25
Water, Galvd, qts. 10 12 14
Per doz $1 75 $2 00 $2 35
Wood.
Cable, 2-Hoop, $1 90; 3-Hoop, $2 10 per doz.
Cedar, 2-Hoop, $2 85 per doz.
Standard, 2-Hoop, $1 65: 3-Hoop, $1 85 per doz.

PANS.
Dripping ..... 50&10&5%
Fry, Common ..... 60&10&5%
Acme ..... 66%&5%
Roasting.
Brownie ..... Each 30c@37c
L. & H ..... " 58c@80c
Building. PAPER.
Plain ..... per 100 lbs $1 15
Tarred ..... " 1 25
Tarred Felt ..... " 1 80
Diamond A, Red Rosin. pr roll 0 60
Leader, Red Rosin ..... " 0 45
Sand and Emery.
Ajax ..... 50&10%
B. & A ..... 50 & 5%
Wrapping.
Grecian Express ..... per lb 3¾c
Rag ..... " 2½c

Apple.
PARERS.
Bay State ..... per doz $13 00
Reading ..... " 6 75
Turntable ..... " 6 00
White Mountain ..... " 5 25
Potato.
Goodsell's Saratoga .. per doz. $6 50
White Mountain ..... " 6 00

PICKS
Adze Eye Ore ..... 65&10%
Drifting and Poll Picks ..... 60&10%
Ajax Railroad 60%
Extra Railroad ..... 65&10%
Surface 65%

PINCHERS.
Carpenters', wrt. iron, pol. steel jaws 30%
Blacksmiths' 50%
P. S. & W ..... 40&10&5%

Clothes.
PINS.
Common ..... per gr .. $0 12
Hoyt's ..... " .. 20
U. S ..... " .. 70
Picket.
Fluted 15 in ..... per doz .. $0 70
" 21 in ..... " .. 1 60
Spiral ..... " .. 1 90

PIPE.
Conductor. Nested Not nested
Eastern, A ... 75&7½% 75&2½%
Eastern, B. 75&10&2½% 75&7½%
Central ..... 75&7½% 75%
Southwst'n .. 70&7½% 70&2½%
Texas ..... 70&7½% 70&2½%
Mo. River .... 70&7½% 75%
Southern ..... 70&10% 70&5%
Lead.
Full coils ..... per lb ... 6
Cut " ..... " .. 6½
Stove.
Acme—In. 5 6 7
Smooth, per jt. 10½c 10½c 12½c
Planished, " .. 23c 23c 43 c
Peerless—Smooth .. 8½c 9c 11½c
Polished. 15c 18c 22 c
Planished 28c 31c 40 c
Made-up—In. 5 6 7
Smooth ..... 8¾c 9c 12 c
7 to 6 in. Smooth Tapers, pr jt .. 14c
6 in, Smooth T's ..... " .. 30c
7 to 6 in. Planished Tapers 45c
Wrought Iron Gas Pipe.
⅛@⅜-in., black ..... discount, 62½%
⅜ " 65%
⅜-in. to 4-in, black .... " 70&5%
4½ " 6 " .... " 70&5%
7 " 12 " .... " 65%
⅛@⅜ " galvanized " 50%
⅜ " " " 55%
⅜ " to 4 " " 57½%
4½ " " 6 " " 57½%
7 " " 12 " " 52½%

PLANES.
Siegley Iron Bench ..... 50&10%

Corn, PLANTERS.
Monitor ..... per doz .. $7 75
Triumph ..... " .. 6 00
Potato
Acme ..... per doz .. $6 25
Challenge ..... " .. 10 75
Fencing.
Cronk's ..... per doz .. $9 25
Farmers' Choice ..... " .. 8 75
Russell's ..... " .. 8 65
Flat and Round Nose.
Bernard's 30%
German 50%
Lodi 40%
Paragon ..... 40&10%
P. S. & W. Co. 50%

Gas—In. 8 10 12
Per doz $2.10 $4.00 $4.90
PLIERS.
Button's—In. 4½ 6 8 10
Per doz $2.60 $3.10 $3.90 $5.20
Button' 'attern.
In. 4½ 6 8 10
Per doz .. $2.35 $2.50 $2.45 $4.40
Cutting.
Bernard's 30%
Cronk's Impr'vd Button Pliers. 75%
Cronk's Linemans No. 80 ..... 40%
Cronk's Stubbs Pattern .... 50&10%
Cronk's No. 1 ..... 60&10%
Cronk's Staple Puller Pliers .. $9 00
Lodi ..... 40&10&5%
4 Tube, revolving .... " .. 5 25
Tinners'.
Hollow .....
Solid ..... each .. 5½c

PLUMBS AND LEVELS.
Common ..... 75%@75&10%
Cook's 40%
Davis' Iron 30%
Davis' Inclinometer 20%
Stanley's
Nos. 00S 0S 2S 3S
Per doz .. $4.50 $5.20 $7.60 $8.65
Nos. 30 25 50 35
Per doz. $13.00 $17.50 $17.50 $12.35

POINTS.
Drive Well Points ..... 80&10%

POKERS—STOVE.
Wr't Iron, str't or bent, per doz. $0 50
Wr't Iron, wood hand'le " 75
Nickel pl'td, coil hdl's .. " 70

POKES—ANIMAL.
American ..... per doz $2 60
Brown's, wr't steel " .. $5 25@6 25
Eagle ..... " $4 25
Success ..... " 2 60

POLES—FISHING.
Bamboo
Ft. 12 14 16 18 20
Pr 100 .. $2.75 $3.40 $4.75 $6.00 $7.75

POLISH.
Metal.
Pride of the Bar ..... " .. 1 60
Putz Cream.
Pts. 1-6 ¼ ½
Per doz $0.84 $1.35 $1.80
Pts. 1 2 4 8
Per doz. $3.60 $6.00 $9.00 $18.00
White Silk, half pints, per doz. $2.00
White Silk, 6 oz. cans, per doz. 1.00
Wondershine
Pts. 1-6 ½ 1 2
Per doz ... $0.68 $1.30 $2.15 $3.00
Shoe.
M. D. C ..... per doz .. 36c@50c
F. C. O ..... " 40c
T. M ..... " 50c@$1 25
Imperial ..... per gr $5 00
Stove.
Black Eagle, 1 lb cans, pr gr .. $15 00
Black Silk—
5 lb. pail 70c
Paste, 5 oz. cans per doz $1.00
Paste, ½ lb. cans, per doz ... 1.00
Black and Japanned—
Liquid, ½ pint cans per doz. 1.00
Liquid, 6 oz. cans per doz 75c
Steel Range Gloss per doz ... 1.75
Blackene, 1 lb cans .... pr gr .. 12 00
Black Jack, ¾ lb cans. " .. 9 00
Dixon's Carb. of Iron. " .. 5 75
Nickel Plate ..... " .. 4 50

POPPERS, CORN.
Round or Square, 1 qt. per doz., $5@95c
Square, 1½ qt ..... per doz., $1 00
Square, 2 qt ..... per doz., 1 25
1 qt. reversible ..... per doz., 1 50

POTS—FIRE.
Bernz ..... each .. $3 85
Clayton & Lambert's, each, $4 75@6 25
Gate City ..... each .. 6 25
Gem ..... " .. 6 75

POWDER.
See Ammunition.

PRESSES—FRUIT AND JELLY.
Enterprise Manufacturing Co ... 25%
Henis ..... per doz. $2 10

PRUNERS.
Disston's Pole ..... per doz .. $7 50
Henry's Improved .. per doz .. 65&10%
Water's Improved. " 70, 10&5%

PULLERS.
Cork.
Modern ..... each .. $2 60
Quick and Easy ..... " .. 2 90
Nail.
Giant ..... per doz .. $9 00@10 50
Giant Pattern. " .. 00
Tack—Giant ..... " .. 60

PULLEYS.
Awning—Jap'd ..... 40&5% to 35&5%
Clothes Line ..... 30&10%
Hay Fork.
Iron Wheel, 5 in ..... per doz .. $1 85
Wood Wheel, 6 in ... " .. 1 80
Wood Wheel, 6 in ... pass knot ..... " .. 2 25
Hot House—Jap'd ..... 30&5%
Screw ..... " ..... 30&5%
Side ..... " ..... 30&5%
Sash.
Chicago ..... per doz .. $0 39
Clark's ..... " .. 42
Common Sense, 2 in .. " .. 26
" Pattern, 2 in .. " .. 20
Empire ..... " .. 24
Ideal ..... " .. 22

PUMPS
Pitcher Spout.
Nos. 1 2 3 4
Each ..... .90 $1.00 1.10 $1.40

PLATES—TIN.
See Metals in Column 1.

Spray.
Blizzard ..... per doz .. $14 25
Cyclone, tin ..... " .. 3 90
" copper ..... " .. 6 75
Daisy ..... " .. 8 75
Little Giant ..... each .. 2 40

PUNCHES.
Conductors', No. 22 .... per doz .. $2
Machine ..... per lb ..
Saddlers'.
Common ..... per doz .. 60c@70c
Good ..... " .. 72c@84c

PUTTY.
In Bladders.
Strictly pure ..... per 100 lbs. $2 25
Commercial ..... " " 2 10

RAIL.
Barn Door.
Light Wrought .. .. per ft. 3c
Safety ..... " 4½c
Single Flange ..... " 1¾c
Smith's Wro't Bracket—plain 3½c
Smith's Special 4½c
Smith's "Never Jump" 11c 50%
Smith's Plain Steel 30%
Smith's Milled Steel 4½c
Sliding Door.
Painted iron ..... per ft. 4½c
Bronzed wr't iron ..... " 8½c

RAKES.
Coal or Road ..... per doz. $6.50
Garden.
Cronk's Champion 70%
Cronk's Victor 75%
Steel, braced ..... 75&15%
Steel, bow 70%
Malleable iron, heavy 70%
Hay—Wood ..... per doz. $1 40@2 00
Lawn—Wood.
Common ..... per doz. $2 50
Automatic ..... " 6 00
New Lawn Queen .... " 3 60
Jumbo, 36 teeth ..... " 6 50

RASPS—See Files.

REGISTERS.
List July 1, 1903.
Black and White Japanned .70 to 75%
Nickel Plated ..... 70 to 75%
Electroplated, Brass, Bronze or Copper ..... 70&75%

RINGS
and Ringers—Hog.
Blair's Rings ..... per doz. 60c
Blair's Ringers ..... " 84c
Brown's Rings ..... " 65c
Brown's Ringers ..... " 90c
Champion Rings ..... " $2 25
Champion Ringers ..... " 1 70
Hill's Rings ..... " 48c
Hill's Ringers ..... "70c@95c
Mazor Rings ..... " 80c
Mazor Ringers ..... " $1 15
Perfect Rings ..... " 84c
Perfect Ringers ..... " $1 05
Wolverine Rings ..... " 1 50
Wolverine Ringers .... " 70c
ull.
Copper 2 in. 2½ in 3 in
Per Dozen $1 25 1 70
Rea's Impro'd Self Piercing copper, pr d'z $1 50 1 75 2 00
Steel, per doz 3 .95 1 05
Nichel Plated 1 35
Fruit Jar—White ..... per lb. 20c
Key.
Split, round ..... per doz. 1
Split, square ..... " 22c
Ball, round ..... " 22c

RIVETS.
and Burrs.
Copper Belt ..... 50&10&5%
Coppered Iron 75%
Tinners' ..... 66⅔%@10%
Hame ..... per lb.
Slotted Clinch ..... per doz. 40c@45c
Tubular—Nos. 1 and 2, assorted sizes ..... per doz. 45c

ROPE.
Per lb.
Manila, 7-16 inch diameter and larger rates 11½c
Sisal, 7-16 in. and larger 8½c
Cotton.
¼ and 5-16-in. on reels. per lb. 13½c
¼ and 5-16-in. in coils ... " 14c
Sewall & Day Sisal Rope, rates 10c

RULES.
Boxwood 60%
Ivory ..... 35&5%

SASH WEIGHTS.
Per ton, f.o.b. Chicago $30.00

SAWS.
Back.
Disston's ..... 25&7½%
Jackson's ..... 25&7½%
Butchers'—Disston's ..... 25&7½%
Circular.
Disston's 50%
Hiles' 50-10%
Compass.
Common ..... per doz. $1 25@1 60
Disston's ..... 25&7½%
Cross-Cut.
Atkin's 40%
Disston's ..... 40&10% &50%
Pocahontas Bit ..... per ft. 20c
Pocahontas, Blued ..... " 41c
Dehorning.
Atkins' ..... per doz. $5 50
Disston's ..... " 5 75
Hack.
Disston's 25½%
Keystone 33⅓%
Sterling Hack Saw Blades 35%
Sterling Hack

SAWS—CONTINUED.

Hand and Rip.
Brown's ..... 30&7½%
Disston's No. 7 ..... 30&7½%
Disston's Nos. 8, D8, 12, 76, 112, D100, and 120 ..... 25&7½%
Gorham's Comb ..... 30&7½%
Keystone ..... 30&7½%
Sam Sickles', hand ... per doz. $4 25
"I Will," hand ..... " 5 75
"I Will," rip ..... " 6 75
"U. S. A." hand ..... " 12 25
"U. S. A." rip ..... " 14 25
Keyhole—Disston's ..... 25&7½%
Kitchen
Sterling 25%
One Man 50%
Panel.
Brown's ..... 30&7½%
Disston's No. 7 ..... 30&7½%
Disston's D100 ..... 25&2½%
"I Will" 40%
"U. S. A." ..... 40&10&5%
Pruning.
Avery's Duplex ..... 25&7½%
Brown's ..... 25&7½%
Disston's ..... 25&7½%
Wood.
Common ..... per doz. $4 50
Handy ..... " 7 50
Happy Medium ..... " 7 00
Wood Sawyers' Delight " 8 25

SAW SETS.

Common Lever ..... per doz. $ 1.20
Stillman's Lever ..... per doz. 1.30
Leach's ..... per doz. 5.00
Nash's ..... per doz. 4.20
Monarch ..... per doz. 6.50
Aikin's Pattern ..... per doz. 3.50

SAW FRAMES.

Common, plain ..... per doz. $1 20
" painted ..... " 1 60
Counter. SCALES.
Fairbank's Standard ..... 30, 10&5%
Hatch's ..... per doz. $21 50
Little Detective, 1 2 3
Each $2 00 2 25 2 10
No. 1 Tea ..... per doz. 7 75
Union Platform ..... each 2 40
Pelouze ..... 40&10%
Turnbull's Market 50%
Platform.
Common, 600 800 1000
Each $8 20 8 75 9 50
Chicago Standard ..... 30 to 33⅓%
Fairbank's Standard 40%
Osgood 50%

SCOOPS.

Grain.
½ Bu. "Hercules," per doz. .. $13 75
1 " " " " ... 15 50
Box. SCRAPERS.
Stanley's Adjustable, per doz. $3 60
Triangular ..... " 2 50
Cabinet.
Ajax ..... per doz. $2 25
Cast Steel ..... " 65c@75c
Stanley's No. 80 ..... " $8 40
Road.
Cubic ft. 7 5 3
Without runners, ea. $4.35 4.10 3.85
With runners .... " 4.60 4.35 4.10
Bench. SCREWS.
Iron ..... 40&10%
Wood, white maple .. per doz. $3 60
Hand—Wood 20%
Hand Ball ..... 70&10%
Jack ..... 75&5%
Lag or Coach, ... 80%
Saw—Centennial.
Nos. 1 2 3 4
Per doz. 22c 25c 32c 35c
Wood.
F. H. Bright Steel .... 87½, 10&10%
R. H. Blued Steel ..... 85&5%
F. H Jap'd Steel ..... 82½&5%
F. H. Brass ..... 85&5%
R. H. Brass ..... 80&5%
R. H. Nickel Plated 75%

SCYTHES.

Clipper, grain ..... per doz. .. $7 75
Dutchman, grass ..... " .. 5 25
Golden Clipper, grass. " .. 5 00
U. S. A., grass ..... " .. 5 75
Nail. SETS.
Round, common ..... per doz. .. $0 33
Square " ..... " .. 42
Octagon " ..... " .. 33
Square, Buck Bros. .. " .. 1 25
Cup Point, knurled, pr doz. 70c@90c
Rivet.
Farmers' ..... per doz. .. $1 45
Tinners' ..... 50&10%
Saw.
Aiken's Pattern ..... per doz. .. $3 50
Common Lever ..... " .. 1 20
Disston's Monarch ..... " .. 6 50
" X Cut ..... " .. 11 75
German ..... " .. 1 25
Morrill's Old Style ..... " .. 5 00
" Pattern ..... " .. 4 50
Leach's ..... " .. 4 80
Nash's Hand ..... " .. 4 00
" X Cut ..... " .. 5 50
Stillman's Lever ..... " .. 1 30
" X Cut ..... " .. 2 50

SHARPENERS—SKATE.

Diamond ..... per doz. .. $1 60

SHAVES—SPOKE.

Iron ..... per doz. .. $1 25@$2 75
Wood ..... " .. 2 75@ 4 75
Bailey's ..... 50&5%
Goodell's 15%
Stanley's Universal ..... 30&5%

Pruning. SHEARS.
Buckeye, No. 1 ..... per doz. .. $6 75
" No. 2 ..... " .. 8 40
California Pat., 9 in. .. " .. 4 25
" 10 in. .. " .. 5 00
Draw Cut, No. 3 ..... " .. 14 75
" No. 4 ..... " .. 17 50
Henry's Pat. 0 01 14 012
Per doz. .. $1.90 $2.50 $3.15 $3.50
Star ..... per doz. .. $4 75
Sheep—No. BBA.
6 in. 6½ in. 7 in.
Reg. Grip .. $11.25 $11.50 $12.00
Nar. Grip .. 11.75 12.00 12.00 doz.
Tinners'—See Snips.

SHEAVES—SLIDING DOOR.

In. 3 4 5
Common .. Per set .. $0.42 $0.48 $0.70
Hatfield's. " .. .75 1.00 1.60

SHELLERS—CORN.

Union ..... per doz. .. $7 25

SHOT—See Ammunition.

SHOVELS AND SPADES.

Drain.
Iwan's Perfection 50%
Railroad, Etc.
Gold Hibbard's ..... per doz. .. $9 25
C. H. Conovers's ..... " .. 7 75
Beckwith's ..... " .. 7 75
Hickory ..... " .. 6 25
Greenleaf's ..... " .. 5 75
Columbus ..... " .. 5 00
Ames' new list ..... Discount 12½%
Coal.
No. 2 Ajax ..... per doz. .. $5 25
No. 4 Golds ..... " .. 6 25
Ames' new list ..... Discount 12½%

SIFTERS.

Hunter's Genuine ..... per doz. $1.10
" Imitation ..... " .90
Tin Rim, 16 mesh plain wire 1.35
Wood " 16 mesh plain wire .80
Cast Iron. SINKS.
Painted ..... 1 &5%
Enameled, White ..... 60-10&10%
Wrought Steel.
Painted, new list ..... 40-10&5%

SLEDGES—See Hammers.

SNAPS—HARNESS.

Champion 65%
German Pattern ..... 30&5%
Judd's Pattern ..... 60&10%@70%

SNATHS.

Double Ring, Bush .... per doz. .. $6 75
Patent Loop " .... " .. 7 30
" " Grass .... " .. 6 50

SNIPS—TINNERS'.

Hernisch's ..... 40&5%
National ..... 40&5%
P. S. & W. Co.'s ..... 25&5%

SOLDER.

See Metals, Column 1

SPRINGS—DOOR.

Perfect. Nos. 1 2 3 4
Per doz. 32c 38c 45c 48c
Reliance, Light $1.40, Heavy $2.20 doz.
Star ..... .90, " 1.20 "
Torrey's ..... per doz. .. $1 25
Warner's— No. 11 No. 13
Per doz. 70c $1 30

SQUARES

Steel and Iron 70%
(Add for Bluing, $2.50 per doz., net.)
Mitre—Stanley's No. 12 ..... 40%
Try.
Stanley's No. 20, new list ... 30&10%
" Nos. 12 and 14 ..... 40%
Try and Bevel—Stanley's ..... 40&5%
Try and Miter.
Fox's ..... per doz. .. $7 25
Winterbottom's 50%

SQUEEZERS—LEMON.

Common Wood ..... per doz. .. $0 70
Porcelain Lined, wood. " .. 1 30
Boss, tinned iron ..... " .. 82
Pearl, nickel plated ..... " .. 1 30
Star " " ..... " .. 1 60
Little Giant, tin'd iron " .. 4 25
King ..... " .. 2 50
Drum ..... " .. 4 75

STAPLES.

Blind—Barbed ..... per lb. 9½@10c
Butter Tub ..... " 8@8½c
Fence, less than carload.
Polished ..... per 100 lb. $2 40
Galvanized ..... " 2 70
Netting—Galvanized ..... per keg 3 60
Wrought.
Wrought Staples, Hasps and Staples, Hasps, Hooks and Staples, and Hooks and Staples ..... 85-10&5%
Extra heavy ..... 75&10%

STEELYARDS.

Discount 25%

STONES.

Axe.
Hindostan ..... per lb. 5½@7c
More Grit ..... " 9½c
Washita ..... " 16½c
Emery ..... 60%@60&5%
Oil—Unmounted.
Arkansas Hard ..... per lb. $2 00
Arkansas Soft ..... " 1 15
Hindostan ..... " 6½@6½
Oil.—Unmounted.
Lily White ..... per lb 42c
Queer Creek ..... " 14½c

Ouachita ..... " 35c
Washita ..... " 25c
Sythe—Black Diamond. per gro. $7 75
Clear Grit ..... " 4 25
Gem Corundum ..... " 7 50
Green Mountain ..... " 4 20
La Moille ..... " 7 00
White Mountain ..... per gro. 6 50
Willoughby Lake ..... " 6 25
Red End ..... " 3 15

STOPS—BENCH.

Hotchkiss' ..... per doz. $3 60

STOPPERS—FLUE.

Common ..... per doz. 42c
Crown ..... " 48c
Gem, flat, painted ..... " 72c
Gem, cor'd, decorated ..... " 68c
Kirch's ..... " $1 20
Peerless ..... " 72c
Skinner's Common Sense " 95c

STRAPS.

Scoop ..... per doz. prs. $1 80
Skate ..... " " 60@70c
Carpet. STRETCHERS.
Bullard's ..... per doz. $3 90
Excelsior ..... " 6 00
Malleable Iron ..... " 70
Perfection ..... " 6 00
King ..... " 4 50
Wire.
N. S. Elwood's ..... per doz. $5 75
O. S. Elwood's ..... " 6 00
Little Giant ..... " 5 50
Star Lever ..... " 6 25
Star Tackle Block ..... " 9 25
Warner's ..... " 6 25

SWIVELS.

Malleable Iron ..... per lb. 5½c
Wrought Steel ..... per gro. $4 50

TACKS.

American Cut ..... 90&5%
American Wire ..... 85&25&10%
Bill Posters Cut ..... 90&40%
Blued Carpet ..... 90&15%
Tinned Carpet ..... 90&15%
Gimp ..... 90&30&10%
Upholsters' Cut ..... 90&40&5%
Upholsters' Wire ..... 90&25%
Double Pointed ..... 90&30%
Copper ..... per lb 27c
Canvas Nails ..... 75&5%
Clout Nails ..... 75&10&5%
Hungarian Nails ..... 80&5%

TAPES—MEASURING.

Asses' Skin ..... 40&10%
Bend Leather 25%
Patent Leather 25%
Lufkin's Steel 30%
Lufkins Metallic 30%

THERMOMETERS.

Tin Case ..... per doz., 95c@$1 25
Wood Back ..... " $1 75@ 9 00
Glass ..... " 15 50
Bale. TIES.
Single Loop 80%
All other kinds 70%
Cow—See "Chains."

TOOLS—SAW.

Atkin's Dexter ..... per doz. $4 25
Atkin's Excelsior ..... " 6 25
Disston's Universal 40%
McDonald's 33⅓%
Game. TRAPS.
Newhouse 50%
New Victor 75-10%
Mole—Reddicks ..... per doz. $5 75
Mouse and Rat.
Wood Choker ..... per hole 11c
Tin Choker ..... " 9c
Delusion ..... per doz. 85c
Imitation Sight, Rat .. " 80c
Marty Rat ..... " $6 75
Marty Rat, Imitation .. " 3 75
Marty Mouse ..... " 3 15
Marty Mouse, Imitation " 2 10
French Automatic ..... each $3 60
Fly.
Balloon ..... per doz. $1 10
Harper's ..... " 1 25
Brick. TROWELS.
Standard 30%
Brade's ..... 10&7½%
Disston's 30%
Rose's 25%
Plasterers'.
Standard 33⅓%
Disston's 30%
W. & McP 25%

TRUCKS.

Bags ..... each $1 70
Handy ..... " 1 50
Warehouse ..... 60&5%

	No. 1	2	3
Half Ironed	$2.60	$3.40	$5.00
Full Ironed	3.90	5.75	6.75

TUBS-WASH.

	No. 3	2	1	Ex. large
Standard, per doz.	$5.25	6.25	7.25	9.75
Dowel .... "	5.60	6.60	7.50	10.00
Cedar .... "	6.50	7.50	8.25	
Indurated. "	7.20	7.95	9.45	11.70
Galvanized. No.	1	2	3	
Per doz	$5.25	5.75	6.50	

TWINE. per lb.

3-ply Cotton Wrapping 23c
4 " " " 24c
4 " Cotton Extra Wrapping 29c
3 " " " Hvy. Wrap'g. 27c
4 " " " Wrapping on tubes. 23c
4 " " " " cones. 24c
4 " " " " " 24c
India Hemp, ¼-lb. balls 18c
" " ½-lb. " 17c
" " ¼-lb. " ... doz., 65c

2-ply " ¼-lb. " 11½c
3 " " ½-lb. " 11½c
Jute Wrapping, ½-lb. balls 11½c
Jute Wool, 1-lb. balls 6c
Seine. Nos. 6 9 12 15 +
Soft, per lb. .26 .25 .24½ .24
Med. " " .25 .24½ .24
Hard " " .28 .26½ .25½
Staging, ¼-lb. ball, size 21 ..... 24c
" ¼-lb. ball, " 24 ..... 23c
" ¼-lb. ball, " 27 ..... 23c
Bagging, ¼-lb. ball 22c
3-ply "B" in hanks 19c
4 " "B" " " 19c
3 " "A" " " 20c
3 " Silver Finish, in hanks 20c
Fodder or Lath.
130-strand 8c
200-strand 8½c

VISES.

Bonney's 30%
Cheney's 20%
Parker's Oval Slide ..... 50@50&10%
Parker's Parallel ..... 15@20%
Parker's Victor 10%
Parker's Combination ..... 50&10%
Solid Box ..... 60&5%
Adam's Mechanics' ..... each $2 65
Williamson Universal 20%

WARE,

Cast-Iron Hollow.
Ground ..... 40, 10&2½%
Unground ..... 50, 10&2½%
Extra Finished ..... 40&10%
White Enameled ..... 40&5%
Maslin Kettles 65%
Enameled.
Cherry Blossom 33⅓%

WASHERS.

Standard O. G. cast iron, per lb. .2½c
Wrought iron in bulk per lb.:

In. ¼	⅜	½	⅝	¾	⅞	1
7¾c	5½c	4c	3¾c	3½c	3½c	3½c

Wrought steel in 5 lb. boxes, per lb.:

In. ¼	⅜	½	⅝	¾	⅞	1
8¾c	6½c	5c	4¼c	4½c	4½c	4½c

WEDGES.

Ax ..... per doz. 30c
Galling ..... per lb .. 10½c
Saw ..... " .. 9½c
Calf. WEANERS.
Fuller's, per doz ..... $2 00 to $3 50
Tyler's Safety, per dz 1 85 to 3 40
Carroll's, per doz ..... 2 50 to 3 35
Standard, per doz 2 75
Hoosier, per doz ..... 3 10 and 4 15

WEIGHTS.

Hitching ..... per lb .. 3½c
Sash—F.O.B. Chicago .. pr ton .. $20.00

WHEEL BARROWS.

Common Railroad .... per doz. .. $16 00
Heavy " .... " .. 19 50
Railroad, ball bearing " .. 19 00
Santiago Steel Tray .. " .. 26 50
No. 04 Steel Dirt ... " .. 47 00
No. 04½ " " ... " .. 50 00

WHEELS.

Corundum ..... 70&10&5
Emery ..... 75&5%
Well. In. 8 10 12 14
Per doz. $1.90 $2.20 $3.00 $5.50

WIRE.

Barbed.	Painted.	Galv'd.
Carloads ... pr 100 lbs ..	$2.45	$2.75
Less than car " ..	2.55	2.85

Brass.
In coils 20%
In 1 lb. spools, new list ..... 50&10%
Broom—Tinned ..... 60&10&10&10%
Cable—Same price as Barbed Wire.
Copper.
In coils ..... 20&10% 33⅓%
In 1 lb. spools, new list ..... 50&10%
Fence—Smooth.
Nos. 6 to 9, Annealed, pr 100 lbs. $2.15
Nos. 6 to 9, Galv'd ... " 2.45
Hair—New list ..... 50&10%
Market.
Bright, full bdles ..... 70&10%
Bright, broken bdles 70%
Coppered, full bdles 70%
Coppered, broken bdles .... 65&10%
Tinned, full bdles ..... 70&5%
Tinned, broken bdles ..... 65&10%
Picture.—In coils ..... 80% @80&10%
In 5 lb. spools ..... per lb .. 35c
Plain—Small lots $2.00
Car lots 1.95
Small spools 5c per hundred higher

WRENCHES.

Acme Standard 60%
Alligator ..... 65&5%
Always Ready ..... 40&10&5%
Bemis & Call 40%
Coe's Standard ..... 40&10%
Girard's Agricultural ..... 75&10%
P. S. & W. Co.'s Agricultural 75&10%
" " " Knife H'dle .. 50&5%
Wescott's "S" 33⅓%
Malleable "S" ..... per lb. 05½c
Malleable ..... per lb. 05½c
Stillson Pipe ..... 60&5%
Trimo " 60%

WRINGERS.

Clothes.
No. 23, Guarantee ..... pr doz. $27 00
No. 110, Guarantee ..... " 27 50
No. 150, Sunshine ..... " 21 50
No. 130, Mendota ..... " 19 50
No. 12, Success ..... " 18 50
Blue Bell, Ball Bear'g. " 25 50
No. D 110, Domestic ..... " 24 50
No. E 350, Empress ..... " 29 50
No. 122, Bicycle Ball-bearing ..... " 26 50
No. 122, Swan ..... " 26 50

Wants and Sales.

For yearly subscribers to THE AMERICAN ARTISAN will be inserted under this head advertisements of six lines WITHOUT CHARGE for employers wishing to secure employes, persons seeking situations, parties desiring to purchase a business, businesses for sale, partners wanted, to exchange, etc. Those who respond to these announcements will please mention that they read the advertisement in THE AMERICAN ARTISAN.

BUSINESS CHANCES.

PATENTS

HUBERT E. PECK, 623 F St., N. W., Washington, D. C. Consulting Expert in Patent Causes. U. S. and Foreign Patents. Send for leaflet on "Rejected Patent Applications." Honest work but no "Something for Nothing" offers.

Stock of hardware in northwestern Iowa for sale for cash, in a town of 3,000, county seat, three railroads, only one other stock of hardware in town, best of farming country. Good reasons for selling. Stock will invoice about $8,000. Address "N. P.," care THE AMERICAN ARTISAN, 69 Dearborn St., Chicago, Ill. 2

For Sale—Old established hardware, tin, plumbing and heating business in a South Jersey town of over 5,000 inhabitants, with a good surrounding farm district. Will sell at a sacrifice because of ill health. Address J. H. Lewis, Vineland, N. J. 2

For Trade—Will trade good 270 acre well improved farm in Freeborn county, Minn., for good clean stock of hardware. Can sell 40 acres. Balance all clear for square deal. Address Lock Box 315, Alden, Minn.

For Sale—Small tin shop in good locality, first-class tools almost new, or will sell tools above at 50 per cent off list. Will invoice complete about $300. Address E. A. Rawson, Kalona, Iowa. 2

For Sale or Trade—For real estate or hardware stock, controlling interest in neat little foundry, including patents, patterns and a large amount of raw material. Great bargain for a stove man located in Missouri. Address "B5," Care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago, Ill. 26

Hardware Business for Sale—Stock of stoves, house furnishings, etc.; will invoice about $5,000; all clean, new goods in best city in eastern Illinois; 30,000 inhabitants; doing a thriving business; best of reasons for selling. Address "N.," care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago, Ill. 26

Wanted—A partner in an old established tin and furnace business; must be a good business man and have some practical experience; getting ready for a big fall trade and need $1,000; will sell all, but prefer partner. Address "Had," care THE AMERICAN ARTISAN, 69 Dearborn St., Chicago, Ill. 26

For Sale—A good clean stock of hardware of about $2,500.00 in northeastern Iowa. Only hardware stock in town; exclusive sale of paints and oils. A good business point. Knowlton Bros., Floyd, Ia. 26

TINNERS' TOOLS.

For Sale—Tinner's tools and stock. Good town and plenty of work. A good point for one who can do plumbing. Address Box 582, Bedford, Iowa. 24

For Sale—Complete set of tinner's tools in good condition and cheap; write for list by piece or set. Address Ebert Hardware Co., Truman, Minn. 24

HELP WANTED.

Wanted—At once, a tinner who can do plumbing, pump and wind mill work, set up farm machinery and help in store when needed. Married man preferred. A steady job for the right man. State wages wanted and references. Must be sober. Address Ben Morris, Memphis, Mo. 2

Why employ inexperienced tinners and run your shop at a loss? I have had 20 years' experience in all its details and will take moneyed interest and will make it pay. Address "Business," care THE AMERICAN ARTISAN, 69 Dearborn St., Chicago, Ill. 2

Wanted—Bright young man to handle A No. 1 enameled ware and tinware line for city and suburban trade. Give experience, reference and salary expected. Address "XY," care THE AMERICAN ARTISAN, 69 Dearborn St., Chicago, Ill. 2

Wanted—Young man who understands making cooking exhibits for malleable steel ranges or one who is bright and willing to learn. Address "Exhibit," care THE AMERICAN ARTISAN, 69 Dearborn St., Chicago, Ill. 2

Wanted—Enameled ware and tinware salesman familiar with jobbing and house furnishing trade in Iowa, Minnesota and Wisconsin by one of the best houses in the trade. An exceptional opportunity for a man who is considerably above the average. Give experience, reference and salary expected. Address "XY," care THE AMERICAN ARTISAN 69 Dearborn St., Chicago, Ill. 2

Wanted—At once, a good all around tinner and hot air furnace man. Party must be sober and reliable and able to take charge of tin shop. Address Shoptaugh & Bucker, Maryville, Mo. 2

Wanted—A sober all-round tinner for in and outside work; must understand furnace work; steady work all year round. Must have references. Address "Chicago," in care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago, Ill. 1

Wanted—To correspond with an experienced plumber, tinner and furnace man who would take an interest in established paying hardware business as manager of that department. Address "Plumber," care THE AMERICAN ARTISAN, 69 Dearborn St., Chicago, Ill. 1

Wanted—Three good tinners at once. Mohr-Jones Hdw. Co., Racine, Wis. 1

Wanted—Plumber and heating man, thoroughly competent to lay out and figure and do jobs of plumbing and steam and hot water heating. Must be of pleasing address, strictly temperate and of good character. Write us, giving reliable references. Permanent employment to right man at good wages. Fulton Hardware Co., Portland, Ind. 1

Wanted—Thoroughly good tinner, experienced in all kinds of roofing, spouting and shop work; must be strictly temperate in habits, and agreeable address. Permanent employment for right man. Send reliable reference as to ability and character. Fulton Hardware Co., Portland, Ind. 1

Wanted—Fair tinner and sheet metal worker who has some knowledge of windmill and pump work. Address R. W. Isaacs, Clayton, New Mexico. 1

Wanted at Once—Two or three good cornice makers. Address Henry Weyand Co., Inc., Waterbury, Conn. 26

Wanted—A good man for creamery and dairy supplies on all kinds of tin work. Address Emil Taege, Box 28, Arlington Heights, Ill. 26

Wanted—Working foreman for cornice department; must be able to lay out details and get out work complete; state experience and wages wanted; steady position to right man. Address "Steady," care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago, Ill. 26

Wanted—A first-class tinner; one that can do all kinds of guttering, tin roofing, furnace work, and must be willing to work at anything. State wages wanted. Address J. P. Becker, 1506 Main St., Peoria, Ill. 26

SITUATIONS WANTED.

Wanted—A position by tinner, furnace man and plumber of fourteen years' experience. For particulars address "Iowa," care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago, Ill. 2

Situation Wanted by sanitary plumber, gas pipe fitter, hardware salesman or stock-keeper. Some experience as tinner, furnace or pump repairman; 12 years' experience; best of references; no bad habits nor profane language. Address Box 740, care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago, Ill. 2

Situation Wanted—By experienced hardware man, married; thoroughly up-to-date, reliable and temperate; experienced stove salesman. Salary wanted, $30 per week. Write me for references. Competent to take full charge of store. Address "Reliable," care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago, Ill. 26

Situation Wanted—By a practical all around tinner and sheet metal worker of 13 years' experience; plain cornice, fair on furnaces; good in gasoline, stoves and bicycle repairing; 32 years old, married and temperate. Can figure all kinds of work from plans; charge of shop. Firms looking for a hustler, address stating wage limit, and how long you have kept your tinners to "Tinner," 209 South 15th St., Murphysboro, Ill. 26

Situation Wanted—By a thorough hardware, implement and stove man of years of experience in the business as salesman, manager and buyer; will be open for engagement after July 1st. 212 E. Cherry St., Noblesville, Ind. 26

Situation Wanted—Scandinavian, 26, excellent habits, wants position in hardware store; city or country; six months' experience as clerk and tinner. Sober, honest, upright and industrious. Address 52X, Kenyon, Minn. 26

Position Wanted—As tinner by German-American; 10 years' experience at inside and outside work. No. 1 furnace man; will work on 30 days' trial. Address "A. A. 3," Larimore, N. D. 26

Position Wanted—By an experienced tinsmith, clerk and all-around furnace man. Would like to have charge of shop and outside work, where a good man is appreciated. I am strictly temperate and up to date; 35 and able-bodied. Open for an engagement at once; only those willing to pay good money and engage by the year need answer. Address "Engagement," care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago, Ill. 26

SPECIAL NOTICES.

WANTED.

A man to sell stoves in Wisconsin on commission. Address "S. C. W." care THE AMERICAN ARTISAN, 69 Dearborn St., Chicago, Ill. 3t.2

FOR SALE

Cornice Shop, located in populous section in Chicago. Fully equipped, 8, 4 and 3-ft. shears, and cornice brakes. To be sold because of death of proprietor. Address, "F V" care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago. 3t. 2.

WANTED.

Bright young man with experience as cast stove mounter, to take position as mounter with opportunity of becoming foreman. State age, experience, reference, and wages. Address, "Ohio," care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago. 1t2

IF YOU WANT

More Business—More Profit secure a license to build the Crown Ventilator and Chimney Jack on royalty. We furnish patterns, instructions, electrotypes, advertising matter, and can make it an object for you to supply the demand in your territory. Business steadily increasing. Full particulars for the asking. CROWN VENTILATOR CO., Milwaukee, Wis.

SPECIAL NOTICES.

WANTED

A first-class salesman to represent a first-class line of stoves in Illinois. Must be acquainted with the stove trade, of good appearance and temperate. Good salary for the right man. Address, "Illinois," care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago. 2 t 2

WANTED

Salesman calling on the hardware trade and furnace dealers, to sell furnace pipe, registers and supplies as a side line, on commission. Address "Furnace Pipe" care THE AMERICAN ARTISAN, 69 Dearborn St., Chicago, Ill. 3t-26

WANTED

Salesmen to sell registers, sad irons, and gas stoves. Straight salary or commission. Detroit Register Co., Detroit, Mich. 3t. 26

WANTED

Manufacturers' agent to represent our line of Daisy Spring Bottom Oilers and Nilson Adjustable Pipe Wrenches for all eastern, southern and western states to solicit jobbers' business. When writing mention states wanted and send references. Nilson Walters Wrench Co., Casselton, N. D. 2t.1

WANTED

Stove Salesman on commission for an A 1 line of stoves for Kansas, Nebraska, Missouri and Dakota. Address, "On Commission," care The American Artisan, 69 Dearborn St., Chicago, Ill. 25

STOVE SALESMEN

wanted for Wisconsin, Minnesota and Iowa, to sell leading trade mark line. A first class opportunity for the right men. Address "L 3," care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago, Ill. 3t.26

RECEIVERS' SALE

The undersigned will sell at private sale, Monday, July 18, 1904, at 10 o'clock A. M., the entire stock of Hodson, Dawson Co.'s Plumbing. Heating, Cornice and Roofing establishment at No. 1424 Main St., Elwood, Indiana. Elwood is a city of 15,000 situated in the heart of a rich farming country. Address M. D. HARMON, Rec. 2t.2

COLLAPSIBLE TUBES.

Five pounds sterling will be paid to first person forwarding full particulars of new method of burnishing Collapsible Tubes to BROOKS, PEEL & CO., Kentish Town, England. 1 t 2

C. N. HOOPER, Dubuque, Ia.

VITREOUS ENAMELING

TECHNOLOGIST

Designs, builds and starts new plants. Improves quality and reduces the costs in those already established.

AN OPPORTUNITY.

We desire to dispose of our stove repair department, established 25 years, doing good business—other interests take our entire time. Patterns, repairs, good will and all for sale cheap. Address "Stove Repairs" care The American Artisan, 69 Dearborn St., Chicago, Ill. 25

WANTED

Manufacturers' Agent to represent High Grade line of Stoves and Ranges in Minnesota and the Dakotas.

Address "High Grade," care THE AMERICAN ARTISAN, 69 Dearborn St., Chicago. 4t. 24

WANTED

Manufacturers' Agent to represent High Grade line of Stoves and Ranges in Ohio.

Address "High Grade" care THE AMERICAN ARTISAN, 69 Dearborn St., Chicago. 4t. 24

WANTED

Energetic man as Steel Range and Mounting Foreman. Must understand his business. Answer stating age and experience.

Address "Foreman," care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago, Ills. 24

WANTED

A first-class tinner; assortment worker; no outside work; steady employment to the right party.

Cooney & Geiger, Indianapolis, Ind. 24

WANTED

Salesman of ability to take charge of all territory east of Chicago, south of Springfield, Ill., southern Missouri, Kansas, Oklahoma and the West. A well known line of Steel Ranges to be sold on commission.

Address "Able," care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago, Ills. 24

WANTED

Two good cornice men at once. Address CREAM CITY CORNICE CO., North Milwaukee, Wis. 24

WANTED

A stove salesman to cover retail trade tributary to Indiana. Must be man of ability and integrity. In replying, state age, experience had, wages wanted to start; also furnish name of last employer.

Address "Box 976," care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago Ill. 23

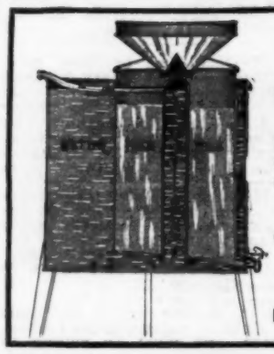
CEYLON PLUMBAGO

We are prepared to supply Ceylon plumbago to the American market cheaper than elsewhere. Samples are to be seen at the office of this Journal, as well as at the office of the Merrick Foundry Supply Company, Toronto, Ontario, Canada. 30 shillings per ton freight to New York harbor.

J. WICKRAMANAYAKA & CO., Kalutara, Colombo, Ceylon. 15

WANTED

Bright young man to handle an A. No. 1 enameledware and tinware line for city and suburban trade. Give experience, reference and salary expected. Address "X Y", care THE AMERICAN ARTISAN, 69 Dearborn St., Chicago, Ill. 26



THE ELGIN

We are General Agents for THE ELGIN

Large water capacity; central water tube; circulation may be forced. Outside can, galvanized iron; painted and grained.

ON LEGS!—Anti back-breaker.

One dealer only in each town. We guarantee your profit. Get the agency.

NORRIS & LORING HARDWARE CO.

Exclusively Wholesale. CEDAR RAPIDS, IOWA.

YOU ARE IN BUSINESS TO SAVE MONEY—THEN WHY NOT BUY YOUR

WASH BOILERS

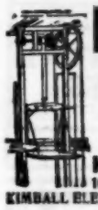
Direct from the manufacturer? I manufacture all kinds and sizes, all with pieced covers.

Try a sample order and convince yourself. I have no salesmen and other expensive help to increase the cost, therefore I can undersell all others in this line. Write for prices.

P. MOSHIEK, 421 So. Halsted St., Chicago, Ill.

LIMONITE

The new brown enamelware, so heavily flecked with white as to be almost a gray. Shapes all of the best and heaviest steel. Ask also for catalogue of the new Azurelite with small samples of colors. The Enterprise Enamel Co., Bellaire, Ohio.



ELEVATORS

Improved Quick and Easy Rising Steam, Electric and Hand Power.

Send for circulars.

KIMBALL BROS CO.
1031 Ninth St., COUNCIL BLUFFS, IA.
KIMBALL ELEVATOR CO., 139 Vincent St., Cleveland, O.

Low Rates to the South

are made on the first and third Tuesday of each month by the

SOUTHERN RAILWAY

at which times round trip tickets to points in the South and Southeast are sold at one fare plus $2.00.

A splendid opportunity is thus afforded the residents of the North and West to personally gain knowledge of the great resources and possibilities of a section which is developing very rapidly and showing results which are most satisfactory.

Low Priced Lands, Superior Business Opportunities, Unexcelled Locations for Factories can be obtained or are offered in all of the States reached by the Southern System.

Illustrated publications and full information upon request.

M. V. RICHARDS, Land & Industrial Agent, Washington, D. C.

CHAS S. CHASE, Agent, Land & Industrial Dept., Chemical Building, St. Louis, Mo.

T. B. THACKSTON, Trav. Agt. Land & Industrial Dept. 225 Dearborn St., Chicago, Ill.

MAKE MORE MONEY

SIGNAL MAIL BOX CO.,
106 BENTON ST., JOLIET, ILLINOIS.

"HITCH YOUR WAGON TO A STAR"

is an old adage, but not too old for the young man, nor too sappy for the old man. We have tried to make

The American Artisan

the Star of the Western Hardware World, and thousands believe that we have succeeded. It will shine on your goods.

THE BASKET BANK.

Is a splendidly finished, accurately adjusted MONEY SAVER. On account of its unique locking device customers say it *makes them save* No way to get the money out until $5.00 is saved, or some multiple of $5.00. Holds $40.00 in silver. Register keeps the count. Set them on your show case and they sell themselves. Retail for 75 cts. Ask your jobber or write the Manufacturers.

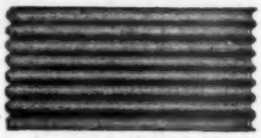
HOLDS $40.00. **KEYLESS BANK CO. Ltd., 30-36 La Salle St., Chicago, Ill.**

PATENT LIGHTNING PORTABLE PUNCH
No. 3; a high grade tool, adapted to all forms of curved or flangework; pays for itself every week in the year. Cap 3-16 iron.

For catalog and price address

American Lock Nut Company, Oregon, Illinois.

PATTERN LETTERS
WE HAVE THEM
SIZES, ONE EIGHTH TO TWO INCHES.
ROMAN, ROUND FACE GOTHIC, SHARP FACE GOTHIC, HAIR-LINE GOTHIC, FLATTENED FACE GOTHIC, ANTIQUE POINTS AND REVERSED NAMOS FOR BRANDING IRONS.
ST. LOUIS ELECTROTYPE FOUNDRY
214-216 PINE ST. ST. LOUIS, MO.



Write us for Catalogue and Low Prices on BEST

Steel Roofing, Corrugated Iron, Etc.

We are large manufacturers of these goods, and can save you money.

SYKES STEEL ROOFING COMPANY
CHICAGO, ILL., and NILES, OHIO

Something Striking

THAT'S WHAT OUR

PURE COPPER CABLE LIGHTNING ROD IS.

It pays over 300% profit to the dealer. Only one agent in a town. We guarantee our price to be far below that of any other firm manufacturing the same class of goods.

MAHER & SON, Preston, Iowa

Century Box is the best box made. Size, 8x7x18 inches. Retail price $2.00. Discounts to the trade.

Tecumseh Box is the best low priced box made. Size, 6x6x18 inches. Retail price, $1.25. Write for discounts.

"THE TECUMSEH"

CENTURY POST CO.
Tecumseh, Mich.

It costs money to advertise—it costs a darned sight more to stagnate.
—Anco Special.

Standard Rural Mail Box.

Approved by the Postmaster General.

Made of Heavy Galvanized Iron, Strong and Durable.

HOPSON-HAFTENCAMP CO.
25-27-29 Campau St., Grand Rapids, Mich.

METAL SHINGLE ROOFING

With Montross Telescope Side-lock is the best roofing in the world for house or barn. ☞ Storm proof. Easily applied. Catalogue. Prices and Testimonials free for the asking.

Montross Roofing Co., Camden, N. J.

PERFORATED METAL
THE RUST-AITCHISON PERFORATED METAL CO.
303-305 DEARBORN STREET, CHICAGO, ILL.

DIXON'S Silica-Graphite PAINT PREVENTS RUST
MANUFACTURED ONLY BY THE
Joseph Dixon Crucible Co., Jersey City, N.J.

STOVE REPAIRS

FOR ANY MAKE STOVE, RANGE OR FURNACE

FULL STOCK—PROMPT SHIPMENTS

COMPLETE LINE STOVE SUPPLIES AND WINDSOR FURNACES.
Write for booklets and prices.

J. L. MORRIS STOVE REPAIR CO., - CHICAGO

REPAIRS For all Stoves and Furnaces

PASTE, STOVE RODS, STOVE PUTTY, STOVE KNOBS, PIPE DAMPERS, MICA, ETC.

WM. T. DUST CO.
DETROIT, MICH.

GREAT WESTERN STOVE REPAIR CO.

Repairs for all Stoves, Ranges, and Furnaces.

312 Hennepin Ave., - - MINNEAPOLIS, MINN.

The Stove Repair "Tip" Is

"BRAUER"

316-318
NORTH THIRD ST.
ST. LOUIS MO.

AMERICAN STOVE REPAIR WORKS

Manufacturers of

STOVE AND FURNACE REPAIRS

186-188 W. Seventh Street, : ST. PAUL, MINN.

When things aren't going quickly, and you can't use twine;
When cobwebs gather thickly, just drop us a line.

PATTERNS
STOVES WOOD & METAL
MILWAUKEE PATTERN WKS
505-507 CEDAR ST.

***The* GEO. W. COPE,**
Stove Pattern Works
Corner Brush and Woodbridge Sts.
DETROIT, MICH.

NEW BLOOD——NEW IDEAS.

***The* MANSFIELD STOVE PATTERN WORKS**
MANSFIELD, OHIO.

F. W. REYNOLDS, Proprietor.

WELLER PATTERN Co
DESIGNS and ESTIMATES FURNISHED FOR ALL KINDS OF STOVE PATTERNS
QUINCY, ILL.

MANUFACTURERS

Contemplating establishing plants in the West should take advantage of a location on

THE NORTH-WESTERN LINE
C.&N.W.R.Y.

Chicago & North-Western Ry.

which reaches the famous

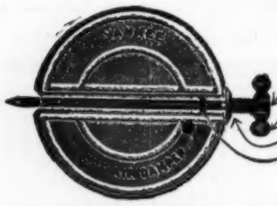
WATER POWERS, COAL FIELDS, IRON ORE RANGES, HARD AND SOFT LUMBER DISTRICTS

of the West and Northwest, and affords the best means of transportation to the markets of the world. For further particulars apply to

MARVIN HUGHITT, Jr., *Freight Traffic Mgr.*, E. D. BRIGHAM, *Gen'l Freight Agent*,
CHICAGO

YANKEE ALL STEEL DAMPER

The Best and Easiest Damper to get in or out. Cheapest Damper made. Made also in oval shapes.



HOT AIR DAMPER.

Steel Rod flattened and turned over handle.
Enameled Wood Handle, can't get out.
Spring and Washer.
This pin keeps washer and spring on the rod.
¼ inch cold-rolled steel rod. Can easily be driven through pipe, making small and same size holes on both sides.
Pin at this point with the one further up on the rod, hold the plate firmly, because they are made with large, elongated head. Steel damper plate.

SMOKE PIPE.

You Can't Afford to Make Dampers When You Can Buy the Yankee.

Smoke Pipe Sizes,	3	4	4½	5	5½	6	7	8	Hot Air Sizes,	6	7	8	8½	9	10	10½	11	12	12½	14	15
PER DOZ.,	.85	.85	.85	1.00	1.10	1.20	1.50	2.15	PER DOZ.	1.20	1.50	2.15	2.35	2.55	2.80	3.05	3.30	3.50	3.75	5.00	6.00

SAMPLES SENT WITHOUT CHARGE

THE S. M. HOWES COMPANY

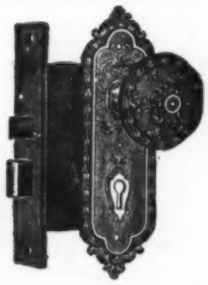
40-42-44-46 UNION STREET, BOSTON **Factory at CHARLESTOWN**

THE TAYLOR & BOGGIS FOUNDRY CO.

CLEVELAND, OHIO

MANUFACTURERS OF **LIGHT GRAY IRON CASTINGS**

Builders' Hardware, Dampers and Damper Clips, Oil and Gas Stoves, Furnace Lamps, Molasses Gates, Letter Boxes, Hardware Specialties.



"Cut Prices"

Generally indicate a cut in quality. I make no cut in quality but

Offer the very best Polishing and Plating Supplies at the Lowest Possible Prices.

Are you interested? If so, watch this space weekly and you will find something worth knowing. : : : : : : :

Have you tried my

Tripoli Composition, Crocus Composition, Silver Finish, Steel Polish, Emery Cake.

If not, why not? Samples with prices FREE.

F. B. STEVENS 200-210 Larned St. West, Detroit. Mich.

ESTABLISHED 1874

The S. Obermayer Co.

Cincinnati. Chicago. Pittsburgh.

MANUFACTURERS

"Everything You Need in Your Foundry."

SEND FOR No 40 GENERAL CATALOGUE.

A Saving of Over 25%

guaranteed to ELECTRO PLATERS by the use of our

High Grade Caustic Potash

More Speed, Cleaner Work and Greater Economy.

Manufactured by

ROBERTS CHEMICAL COMPANY

NIAGARA FALLS, N. Y.

Great Britain

I offer exceptional opportunities for selling American specialties in England. Increase your business. Send me your catalog and special prices. References irreproachable. P. T. STERN, 11 Queen Victoria St., London, Eng.

Cable Address: "Quizzing, London."

UNION BRICK BONDS

The Best Wall Ties Made

They Save Money

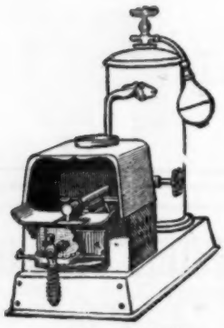
We Will Send You Samples Free

Ashler Anchors Made to Order

UNION BRICK BOND CO.,

PITTSBURGH, PA.

WHEN a logger places a wedge in a log and hits it a blow he does not know how much of a split the effort will make, but he does know that if he continues to hit the wedge the log will soon lie in twain. The driving wedge to business is advertising. You cannot expect to make your success with a single ad, no matter how large. Continual rapping does it.



GEM FURNACE
NO SMOKE! NO ODOR! NO NOISE!

OFFICE OF

BURGESS SOLDERING FURNACE CO.

J. BURGESS & SONS, Manufacturers and Proprietors

COLUMBUS, OHIO, U. S. A. July 2,1904.

The American Artisan,

Chicago, Ills.

Gentlemen:-

We find advertising in the American Artisan no experiment as our continuous "Ad" in your Journal for the past seventeen years will testify.

Our sales on Gem Gasoline Soldering Furnaces so far this year have exceeded any previous year in the history of our business and the result we attribute largely to your Journal which we have found to be one of the best mediums to reach the dealers.

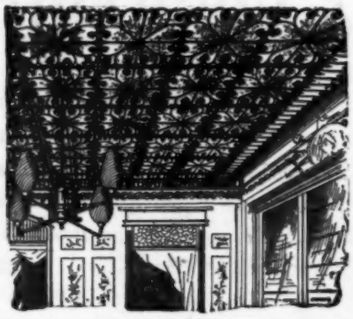
Trusting the good work will continue, we remain,

Yours truly,

BURGESS SOLDERING FURNACE CO.

J. Burgess & Sons

Proprietors.



Ceilings Made For Old or New Buildings.

Berger Metal Ceilings are adaptable to plaster or wood in old or new buildings. An old store room decorated with our metal ceilings and side-walls presents the appearance of an entirely new place. Berger Ceilings are made in classified designs, especially for business places and store rooms. Write for our 12H art catalogue of metal ceilings. It's free to interested merchants.

THE BERGER MFG. CO., Canton, Ohio.

Mfrs. Metal Ceilings, Roofing, Siding, Eave Trough, Conductor Pipe, Steel Office Furniture etc.

NEW YORK, 210 E. 23rd ST. PHILADELPHIA 1215 FILBERT ST.
BOSTON, 176 FEDERAL ST. ST. LOUIS, 623 N. MAIN ST.

ELLER'S METAL CEILINGS

TIN PLATE, CORNICE, SKYLIGHTS

BLUED AND POLISHED STOVE PIPE IRON, EAVESTROUGH, CONDUCTOR PIPE, STEEL ROOFING & SIDING ETC.

J. H. ELLER & CO. CANTON OHIO

"Canton" Metal Ceilings are labor savers and patron pleasers. Are best and cheapest "because the construction is right." Classified designs. Ever see our Art Book "G"? It shows the goods.

METAL CANTON CEILINGS

The Canton Steel Roofing Co. CANTON, OHIO. ("The Metal Ceiling Makers.") N. Y. Agency, No. 157 W. 23d Street.

HOMESEEKERS EXCURSIONS

On FIRST and THIRD TUESDAYS in each Month to **VIRGINIA**

Via NORFOLK & WESTERN RAILWAY

For all information as to Rates and Tickets and for LAND PAMPHLETS and descriptive matter, address ALLEN HULL, D. P. Agt., Columbus, Ohio

A Hot Proposition

That is just what a No. 5 Fire Pot is.

It produces a strong blue flame which is intensely hot and consumes but little gasoline.

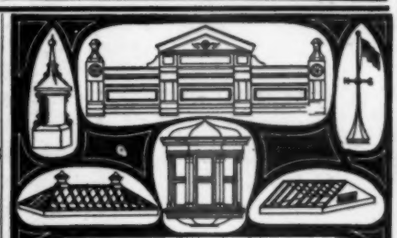
The flame is so arranged that in heating soldering coppers it strikes the heel first and therefore does not burn off the tinning. A kettle of metal and a pair of coppers may be heated at the same time. We say to you "Your money back if it does not please." Jobbers sell at factory price. Our catalog is free.

$4.50 Net.

Clayton & Lambert Mfg. Co., DETROIT, MICH, U. S. A.

Don't interfere with the plain Tin roof business, but do interfere with that of slate of wood shingles, and the Tinner gets the benefit. It's his place to lay them. Catalog.

Cortright Metal Roofing Co.
Philadelphia and Chicago



Cream City Cornice Co.
MILWAUKEE, WISCONSIN
Write for Calalogue and Price List.

ASK YOUR DEALER FOR THE

Sem's

Soldering Furnace

AND YOU WILL MAKE NO MISTAKE

Always ready—No Smoke—No Odor—No Noise—Unexcelled—Unequaled—Unrivaled—Safe—Sure—Durable.

TIN, BRASS OR COPPER RESERVOIR Equipped with Cylindrical Slotted Burner.

MADE ONLY BY

BURGESS SOLDERING FURNACE CO.
COLUMBUS, OHIO, U. S. A.

TINNERS

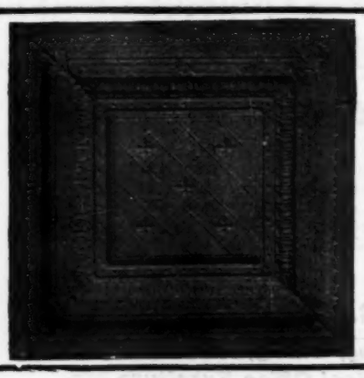
You can save the price of a No. 10 Furnace in one year's time in the saving of gasoline over other styles; also many dollars' worth of time.

NOISELESS, NO ODOR, NO SMOKE

More Heat with Less Fuel.
Greatest Range of Heating. 3 to 12 lb.
Coppers Indoors or on a Roof.

Order direct of your Jobber, or we will ship direct for $6.50.

GEO. W. DIENER MFG. CO., 217 E. Lake St., Chicago



FRIEDLEY & VOSHARDT

194-202 MATHER ST., CHICAGO.

Manufacturers of Sheet Metal Architectural Ornaments, Art Metal Ceilings, Zinc and Bronze Statuary, Finials, Cresting, etc. A full line of Roofing, Galvanized Iron, Corrugated Iron, Sheet Copper, Conductor Pipe, Galvanized Steel Tanks and Steel Signs.

SEND FOR CATALOGUE A 21.

Art Metal Ceiling.

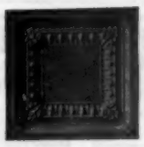
Exclusive and Artistic Designs, appropriate for any style of Architecture.

Architectural Sheet Metal Work, Skylights, Cornices, Finials, Ventilators, Metal Shingles, Roofing and Siding, Conductor Pipe, Eaves Trough, Elbows, Shoes, Etc.

Write for Catalogs and Prices.

KANNEBERG ROOFING & CEILING CO.,

Canton, O., U. S. A., Manufacturers.



THE "CENTENNIAL" Rain-Water Cut-Off

The strongest, most durable and cheapest CUT-OFF on the market.

The only single Cut-off made to fit CORRUGATED and Plain Pipe and which can be used without extra pipe or elbows. For sale by all leading jobbers. Patent applied for.

Manufactured only by

COONEY & GEIGER,

19 and 21 E. South Street,

INDIANAPOLIS, INDIANA.

Somewhat changed yet familiar

THE TRADE MARK ON THE OLD RELIABLE

Apollo Best Bloom Galvanized Sheets

Now looks like this:

Manufactured by

American Sheet & Tin Plate Company

General Sales Office
Frick Building,
PITTSBURGH, PA.

AMERICAN SHEET & TIN PLATE CO. APOLLO V BEST BLOOM TRADE MARK REGISTERED PITTSBURGH

For Sale by

All First Class Metal Houses in the country

DISTRICT SALES AGENTS:

Frank Dickerson,	Battery Park Building,	New York City
W. H. Eaton,	The Rookery,	Chicago, Ill.
W. J. Wetstein,	Security Building,	St. Louis, Mo.
R. R. Hoge,	Ainsworth Block,	Portland, Oregon
I. B. Williams,	Mills Building,	San Francisco, Cal.
Edw. M. Sparhawk,	Equitable Building,	Denver, Col.
John R. Scott,	Hennen Building,	New Orleans, La.
W. T. Shannon,	Union Trust Building,	Cincinnati, O.

Locations for Industries

Erie Railroad Chicago to New York.

The Erie Railroad Company's Industrial Department has all the territory traversed by the railroad districted in relation to resources, adaptability, markets and advantages for manufacturing, and can advise with manufacturers in relation to the most suitable locations. The information furnished a manufacturer is reliable and has practical bearing on the nature of his particular industry.

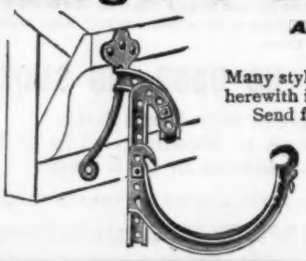
Vast deposits of anthracite and bituminous coal, oil, natural gas—fuel is the paramount factor in manufacturing—sewer pipe, fire and other clays, cement material, gypsum, building stone and numerous other resources exist on the line.

It is important in this age of modern facilities for manufacturers to locate where they can obtain side tracks so as to receive from and ship directly into cars at the factory. Information can be promptly furnished in this connecton about every point on the system between New York and Chicago.

The undersigned will be pleased to furnish full information to manufacturers and local parties contemplating the establishment of new industries.

Address, **LUIS JACKSON,**
Industrial Commissioner
Erie Railroad Company,
21 Cortlandt Street, New York.

Berger's Gutter Hangers



ARE THE STRONGEST, NEATEST AND HANDIEST MADE.

Many styles to suit any building. The Royal Circle shown herewith is an improvement on the old Gem Circle. Send for free sample.

BERGER BROS. CO.

Office and Store: 237 Arch Street. Warerooms: 100-02-04 Bread Street. Factory: 3114-16-18-20 N. 17th Street,

PHILADELPHIA.

Reliable Goods! LARGEST MANUFACTURERS Exclusive Designs!

Eaves Trough all kinds, Conductor Pipe, Mitres, Galv. Wire Hangers, Galv. Steel Hangers, Malleable and Wrought Iron Cond. Hooks, Cutoffs, Strainers, Valleys, Cornices, Finials, Skylights, Cond. Pipe, Elbows, Etc., Etc.

Corrugated Sheets, 5/8" 1¼" 2" 2½" Steel Roofing Galv. and Painted, Roll & Cap. Self Cap. StandSeam, 2-V Crimp, 3-V Crimp, Koehn's Folded Lock Seam, Old Style Double Seam Roll Roofing, Double Cross Lock Curved Cor. Iron, Steel Awnings, Beaded Ceiling, Steel Brick, Rock Face Trimmings, Etc., Etc.

Quick Shipments! IT WILL PAY YOU TO GET OUR PRICES **Largest Stock!**

Send for General Catalog "B"
Ceiling Catalog "C" Architectural Catalog "D"

THE POPULAR LINE

with three elegant trains each way between Chicago and

LaFayette, Ind.
Indianapolis, Ind.
CINCINNATI, OHIO.
Louisville, Ky.

and all points in the

SOUTH AND SOUTHEAST

is the

BIG FOUR ROUTE

Buffet Parlor Cars, or Dining Cars on day trains and Pullman's finest Compartment and Standard Sleepers on night trains. All trains run solid, Chicago to Cincinnati. For reservations, etc., call on or address

J. C. TUCKER,
Gen'l Northern Agent,
238 S. Clark St., CHICAGO, ILL.

Corrugated Iron and Steel,
Eaves Trough
Conductor Pipe and Gutters,
Structural Iron Work,
Roof Paints.

GARRY IRON & STEEL COMPANY
CLEVELAND, OHIO

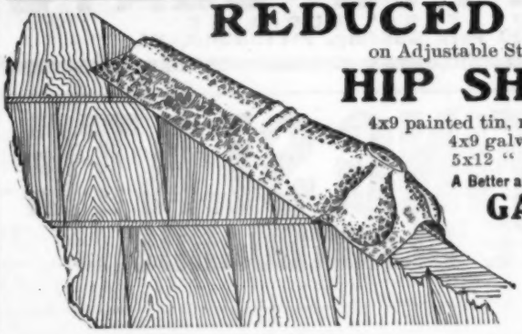
It Will Pay You

to illustrate your advertisements in your local papers. A sheet of comic advertising cuts sent on application

These cuts are furnished with catch-lines showing their application to the hardware, stove and tinners' trades.

ADDRESS

DANIEL STERN
69 Dearborn St., - CHICAGO



REDUCED PRICES

on Adjustable Stamped Metal

HIP SHINGLES

4x9 painted tin, net,	$1.50	per hundred
4x9 galv. "	2.25	" "
5x12 " "	3.75	" "

A Better and Cheaper Finish Than Hip Roll.

GALESBURG CORNICE WORKS.
Galesburg, Illinois

NIAGARA MACHINE & TOOL WORKS

MANUFACTURERS OF

TOOLS FOR SHEET METALS.

TINNERS' TOOLS, SHEARS, PUNCHES, PRESSES, AND DIES, CAN-MAKING MACHINERY.

BUFFALO, N. Y.

The O. K. Steel Brake. Patented March 26, 1901.

BEATS THEM ALL

Visitors to the World's Fair interested in Sheet Metal Work are invited to give us a call in Section 13, near front entrance in Machinery Building.

WATCH FOR THE NEXT.

Sold by H. Weiss & Co., 20 Cliff St., New York, N. Y. Janney Semple, Hill & Co., Minneapolis, Minn.; C. Sidney Shepard & Co., St. Louis, Mo., etc.; Illinois Roofing & Supply Co., Chicago, Ill.; New Orleans Roofing & Metal Works, New Orleans, La.; Peden Iron & Steel Co., Houston, Texas; Holbrook, Merrill & Stetson, San Francisco and Los Angeles, Cal.

Will not warp like wood.

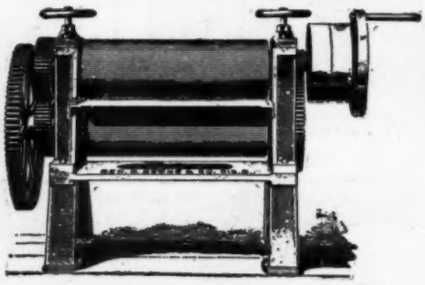
DREIS & KRUMP, MFRS., 3214 S. Halsted, St., Chicago.

We Can Save You

money on Cornices, Skylights, Finials, Ventilators, Window Caps, Gable Ornaments and in fact anything in the Sheet Metal Line. Our Specialty is special work. Write for Catalogue.

The Sheet Metal Specialty Co.

CANTON, OHIO.



Crimping Rolls

This is our new $\frac{3}{16}$ inch pitch crimping rolls which is especially adapted to take "Buckles" out of sheet metal and where the latter is used for cornice work produces a flat and stone like appearance. It is compound geared and works very easily. *Send for catalogue.*

GEO. C. KEENE & CO., Cincinnati, O.

Tools for Sheet Metal—Shears, Punches and Forming Rolls

We invite you to inspect our exhibit at the Louisiana Purchase Exposition.

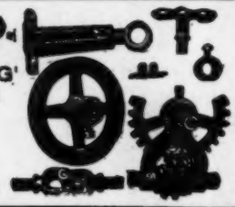
BERTSCH & CO., Cambridge City, Indiana

H. WEISS & CO.

20 CLIFF STREET, NEW YORK.

SKYLIGHT GEARING AND CHAIN LIFTS

TINSMITHS' & PLUMBERS' TOOLS.
CORNICE MAKERS' TOOLS.
COPPERSMITHS' TOOLS.
PIPE THREADING MACHINES.



INDUSTRIES ARE OFFERED LOCATIONS

WITH

Satisfactory Inducements,
Favorable Freight Rates,
Good Labor Conditions,
Healthful Communities,

ON THE LINES OF

THE ILLINOIS CENTRAL R. R.

AND THE

YAZOO & MISSISSIPPI VALLEY R. R.

For full information and descriptive pamphlet address

J. C. CLAIR, Industrial Commissioner,
1 Park Row, CHICAGO,

O'HALLORAN & JACOBS

ROOFING SLATE

SLATERS' SUPPLIES

829-830 Park Building, PITTSBURG, PA.

ROOFING SLATE

SLATE BLACKBOARDS

E. J. JOHNSON & CO.

38 PARK ROW NEW YORK

QUARRIES: Pennsylvania and Vermont

Prices quoted delivered anywhere. Booklet and complete Price List on application.

WIRE INQUIRIES GIVEN QUICK ATTENTION

THAT WE CAN SAVE YOU MONEY ON

CORNICE COPPER

SOFT AND COLD ROLLED—all Sizes.
Boiler Sheet Copper and Bottoms.
All kinds of Tubing, Rod, Sheet and Wire in Copper and Brass.
SOLDERING COPPERS.
Send for stock list of what we carry in our store.

BENEDICT & BURNHAM BRASS AND COPPER COMPANY
211-213 Lake Street, CHICAGO.

LIGHTNING

If you wish to know all about it, send us your address and you will receive our Price List and Catalogue free of charge.

SECURITY LIGHTNING ROD CO.
BURLINGTON, WIS.

"Eagle" Brand Copper Rivets and Burrs

STANDARD FOR QUALITY. (Lake Superior Copper)
MANUFACTURED BY

THE PLUME & ATWOOD MFG. CO.
29 Murray St., NEW YORK — 196 Lake St., CHICAGO, ILL.

See The Point?

Easiest Inserted. Strongest, Best Seller.
Buy of your Jobber, or
E. K. REA, 920 Park Ave., Kansas City, Mo.

None Better than IWAN'S

If There Were We Would Be Making Them

Our Volcano Revolving Chimney Tops, Wire Conductor Pipe Hangers, Post Hole Augers and Diggers, Drain Cleaners, Serrated Hay Knives, etc., are unexcelled in all that constitutes first-class goods. Your jobber or we will quote prices on application. Mfrd. by

Iwan Brothers
Streator, Illinois

U. S. Removable Steel Post Scale IS THE BEST

CAPACITY, 60 POUNDS.

HANSON BROS.
Scale Manufacturers,
30 W. Randolph St., Chicago, Ill., U.S.A.
ASK YOUR JOBBER.

Ye NEW "ROYAL"

The Newest, Neatest, BEST and Most Efficient Storm-Proof Ventilator now made.

U. S. Government Buildings, Pennsylvania Railroad Buildings and thousands of Schools, Churches, Engine Rooms and Factory Buildings from Maine to California are equipped with them. Testimonials from everywhere. Sold by our Home Jobbers and accepted by Architects all over the country. Could you want stronger evidence of merit? Sold right and satisfaction guaranteed. Sizes, 2 inches to 10 feet.

If you are interested, write us.

Royal Ventilator & Mfg. Co.
Office and Factory: 233 South Fifth Street. PHILADELPHIA

4 Trains a Day

via the

MONON ROUTE
CHICAGO INDIANAPOLIS & LOUISVILLE RAILWAY

and C. H. & D. Ry.

Only 8 Hours
from
CHICAGO
to
CINCINNATI

BY DAY, Parlor and Dining Cars
BY NIGHT, Palace Sleeping and Compartment Cars.

CHAS. H. ROCKWELL, Traffic Manager. — FRANK J. REED, Gen. Pass. Agt.
200 Custom House Place, CHICAGO.

$100 IN PRIZES

"First impressions are lasting"—so runs the adage. It should be borne in mind that the first impression the possible purchaser receives of a mercantile establishment, hardware or otherwise, is derived from a glance at the front window. If it is an inviting one, this impression is sure to be a favorable one, while a hodge-podge conglomeration of odds and ends inartistically arranged, repels where it should attract customers.

The advertising value of window space is a factor that is systematically underrated by hardware dealers who are otherwise on the alert to grasp trade opportunities. The great department stores vie with each other in the elaboration and uniqueness of their window displays. Bargains systematically arranged constantly tempt the purses of all passers by. Expert window trimmers at heavy salaries devote their entire attention to stunning windows.

While such service is out of the question for the average hardware dealer, many of the trade have nevertheless admirably utilized materials at hand and have shown themselves possessed of an innate genius for artistic combination or "effect" as it is generally styled.

Since the goods handled by hardware dealers are so generally duplicated throughout the country, allowing a clever display in one city to be largely borrowed from, if not actually reproduced in another city, THE AMERICAN ARTISAN has decided to inaugurate a

WINDOW DISPLAY COMPETITION

In which we will give the following prizes:

PRIZES

$50 for photograph and description of the best Window Display of Hardware received.
$25 for the photograph and description second in excellence.
$15 for the photograph and description third in excellence.
$10 for the photograph and description fourth in excellence.

CONTESTANTS

Any hardware dealer or his assistant or clerk, who is a yearly subscriber to THE AMERICAN ARTISAN at the time he sends in photograph and description of Window Display is eligible to this competition.

TIME

The photographs may be sent by mail or express, charges prepaid and must reach this office not later than noon, September 30th, 1904. Address all photographs to

THE AMERICAN ARTISAN PRIZE COMPETITION, 69 DEARBORN STREET CHICAGO, ILL.

CONDITIONS

Each picture must be signed by a fictitious name or device, and the same name or device must be put upon a sealed envelope, within which are the real name and address of the contestant. This envelope is to be enclosed with the photograph.

AWARD OF PRIZES

The Competition Committee, one of whom will be a practical window trimming man, and one of whom will be a practical hardware man, will pass upon all photographs and descriptions received within the prescribed time and will decide between the contestants.

GENERAL CONDITIONS

We reserve the right to use all half tones and descriptions of same submitted in this competion.

ECLIPSE AKRON LEVEL,

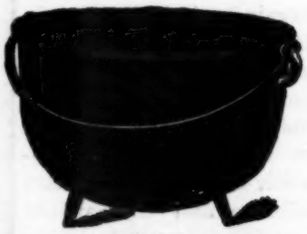
No. 22

Made with new patent adjustable attachment. This is a three-piece level with two plumbs working opposite.

It is made for framers and is always right end up.

THE BAKER, McMILLEN CO., AKRON, O.

SPERRY'S SUGAR KETTLES



Light, smooth, full measure and guaranteed perfect. Made from original patterns. Metal, the right kind in the right place. Ask your jobber for them or write us.

D. R. SPERRY & CO. Hollow-Ware Founders, BATAVIA, ILL.

Cable Address—Vainica.
Codes—A B C, 4th Edition and Western Union

Carr & Co.

EXPORTERS OF

Agricultural Implements Wagons, Carts

Grindstones, Etc.

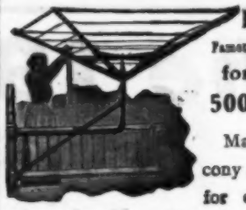
CORRESPONDENCE SOLICITED

NEW YORK CITY.

CLOTHES

DRYERS are a necessity in Hotels, Hospitals, Sanitariums, Reformatories, Laundries, Apartment Houses and Modern Residences. "Canton" Clothes Dryers are a model of perfection and are most economical. There is no waste heat, as heat for the flat-irons, boiling the clothes and heating the dryer is all from the same stove. **A field that is not overcrowded. Big Profits. Quick returns. Do you want the agency for your city? Write quick. Catalogue tells all. Get one.**

The Canton Clothes Dryer & Mfg. Co.,
Office and Works, Canton, Ohio.
New York Office, 157 W. 23rd St.



HILL'S FAMOUS **DRYERS for the lawn**
500,000 in use.

Made also for balcony and roof. Send for catalogue AA.

HILL DRYER CO., Worcester, Mass.

$25 ON 5 TON

Is what you can save
We make all kinds of SCALES.
WRITE FOR PRICES

Also B. B. PUMPS and WIND MILLS

BECKMAN BROS., Des Moines, Ia.

THE CLEVELAND & BUFFALO Transit Company

C&B LINE

CONNECTING **CLEVELAND and BUFFALO**

"WHILE YOU SLEEP"

UNPARALLELED NIGHT SERVICE, NEW STEAMERS.

"CITY OF BUFFALO" and "CITY OF ERIE"

Both together being, without doubt, in all respects the finest and fastest that are run in the interest of the traveling public in the United States.

TIME CARD

DAILY INCLUDING SUNDAY

LEAVE		ARRIVE	
Cleveland	8 P.M.	Buffalo	6:30 A.M.
Buffalo	8 "	Cleveland	6:30 A.M.

CENTRAL STANDARD TIME

Orchestra Accompanies Each Steamer

Connections made at Buffalo with trains for all Eastern and Canadian points, at Cleveland for Toledo, Detroit and all points West and Southwest.

Tickets reading over L. S. & M. S. Ry. will be accepted on this Company's Steamers without extra charge.

Special Low Rates Cleveland to Buffalo and Niagara Falls every Saturday Night, also Buffalo to Cleveland.

Ask Ticket Agents for tickets via C. & B. Line
Send four cents for illustrated pamphlet.

W. F. HERMAN, G. P. A., Cleveland, Ohio.

"LIGHTNING" AND "BLIZZARD" FREEZERS

THEY ARE
Well Advertised,
In Demand,
Easily Sold,
Satisfactory in Use,
Of Known Reputation.

THEY EXCEL IN
Easy Running,
Quick Freezing,
Economy,
Convenience,
Practical Results.

NORTH BROS. MFG. CO.
PHILADELPHIA, PA.

The "Snowflake" Rotary Washer

The Acknowledged Superior of All Washing Machines

FOR DURABILITY, STRENGTH, EASE OF OPERATION AND SIMPLICITY, IT HAS NO EQUAL.

Each

$3.98

A Bargain Offer That Is Truly Wonderful

We purchased a large quantity of these superior washers at a price concession that makes them a genuine bargain, and places them in your hands at a remarkable saving. This is a money maker for you. The largest, simplest, strongest, most durable and most easily operated machine on the market. The self-reversing roller-bearing action makes the operation so easy that anyone can do a washing in much less time than is ordinarily required. Wash-stand, washboard and wringer attachments. We offer these splendid washers at a radical discount from regular prices. Our price, each **$3.98**

TRADE MARK BROTHERS UNDERSELL ALL OTHERS

LYON BROTHERS

Madison, Market and Monroe Streets, CHICAGO

The 1900 WASHER

IS THE EASIEST WASHER TO SELL

As we help the Dealer by advertising in Magazines, and turning inquiries over to him.

This is a full ball-bearing and Automatic Machine. It is the simplest, easiest, and most efficient machine for washing clothes ever invented.

The washing is done while the operator sits by its side, revolving the tub by the handle.

Write For Catalogue.

1900 WASHER COMP'Y,

BINGHAMTON, NEW YORK.

Sunshine "ALUMYNOID" WASHING MACHINES

THE "WHITE DASHER" LINE

Absolutely Rust Proof

Weight 50 pounds
No Wood

THE XXTH CENTURY NOVELTY

Light---Durable
Sanitary---Clean
Simple---Scientific

White Porcelain
Enameled Iron Dasher
Note Balance Wheel

"Tramp, tramp, tramp" is homely and poetic; "Click, click, click," is novel and practical. In your march through life, don't weigh yourself down with burdens. Buy so that an automobile will be thrown in with the purchase.

The great success, with which the introduction of **THE WHITE ENAMELED DASHER LINE** is everywhere meeting, more than repays us for the years of study and experiment attendant upon its conception. There is always a demand for an original, practical, labor-saving device. We thank our friends for proclaiming our Washers to be such.

"Alumynoid" combines Lightness with Strength and Durability. It is Sanitary and Rust Proof. Aluminum, tin, and spelter are its ingredients. It is not coated or plated but is solid all through.

Gas Burning Attachment

THE BODY has the same *outside* diameter as any of the largest size wooden washers. As our machine is made of metal, this gives it a greater *inside* capacity than that of any other machine.

THE BALANCE WHEEL *is fitted to the body of the machine.* It does not have to be raised when lifting the cover. The Washer will not be top-heavy when cover is up. It will not overbalance and tip over the machine; a very common fault.

Gasoline Burner
Ready for Use

Fools make feasts, and wise men eat them.
—Franklin.

Dreams of universal brotherhood and common interests are fascinating. Fascinating things are always dangerous. Some people succeed in destroying the instinct of self-preservation almost entirely. They become nearly or totally unselfish. For their pains, they usually find a grave in the potter's field.

We recommend Sunshine "Alumynoid" Washing Machines for their intrinsic merit alone. We know, our customers know, that they are the best. We don't sell sentiment, name, or good-will. We have outlined a splendid system of cooperation for our agents. It pays you and that pays us. There are a few towns left. Maybe you live in one of them. We want you, if you're selfish and ambitious,—if you prefer to eat at the table rather than at the ash barrel.

Burner Boiling Water
With Washer in Operation

OUR CATALOG IS INTERESTING.

QUINCY WASHING MACHINE CO., QUINCY, ILL.

The "PARAGON" CYLINDER WASHER

Whatever your prejudices may be against washers, you should try the Paragon. It does not partially cleanse the clothes, leaving them to be finished by hand, but does the work perfectly, dispensing with the washboard and hand-rubbing altogether.

Watson Bros. of Marinette, Wis., write:—
"Kindly enter our order for one dozen Paragon Washers, to be shipped at once. Please hurry same forward without delay, as we have worked up a phenomenal sale on the Paragon since our first shipment last August, and desire to be in a position to fill orders promptly. It seems that as we place these machines, each individual sale makes for us many more in a very short time. We have been in business in this city for thirty-one years, and have never known what it was to control the washing machine trade until we got the Paragon established. We are very much pleased to note your up-to-date methods in placing the Paragon on the market, with the absolute assurance to both dealer and consumer that their interests will be protected."

J. M. GAGAN & CO. Manufacturers
CHICAGO, U. S. A.

Pumps and Tubing
Send for Catalog

Galvanized STEEL CHAIN

Sanitary Pump & Tubing Co. Quincy, Illinois.

Let the WHITE LILY Do the Work.

Secure the AGENCY for the

White Lily Washing Machine

It is the Best Seller on the Market.

HIGH SPEED LIGHT RUNNING HANDSOME FINISH and GUARANTEED.

Only one dealer in each town can get them. Write for particulars.

WHITE LILY WASHER CO.
TOLEDO, Ohio, - DAVENPORT, Iowa.

"White Lily Washers wash lily white."

Peoria Washing Machines

Best in the Market—Made with Ball Bearings

Have a Compound Lever Handle which greatly reduces the work of wash days. The motion used in vibrating the handle takes the strain from the back and lets the arms do the work with a great reduction in labor.
Send for Catalogue. Secure the Agency.

CLARK, QUIEN & MORSE
PEORIA, ILL.

Have you ever considered the advantage of the

IMPROVED SCHROEDER ROTARY ROLLER GEARING WASHER?

No steam escapes, prevents disagreeable odors from permeating the house, keeps water hot longer, is light running, simple and durable. The most successful rotary washer on the market.

WORKS SO EASILY A CHILD CAN OPERATE IT.

We can tell you more if you want to know, it is to your interest as well as ours. Why not write us?

THE BENBOW-BRAMMER MFG. CO.
ST. LOUIS, MO.

Do You Know

That the **O. K. WASHING® MACHINE** is the best made, the lightest running and the most attractive washer on the market? *Are you selling it? If not, why?* Every first-class dealer should sell it, because it is made of the best materials, by the best mechanics that can be obtained, and every one sold will sell another.

Write us for Circulars and Prices.

H. F. BRAMMER MFG. CO. Dept. B. DAVENPORT, IOWA

---

100 TINNERS' PATTERNS

COMPLETE FOR
$1.00

Sent Postpaid on Receipt of Price.

DANIEL STERN,
69 Dearborn St. CHICAGO.

IMPROVED Oblique Tumbling Barrel

Barrel can be adjusted to run in any desired position, thus rattling the parts more or less violently to suit the material from which they are made.

Send for Catalogue A.

The Globe Machine & Stamping Co.
971 Hamilton St., Cleveland, O.

4 in. I-Rack Brackets

Makes Wagon Box, Hay, Hog and Wood Racks made from best malleable iron.

Farmers seeing these will have no others.

Over 30 Jobbers ve them, including

Hibbard, Spencer, Bartlett, & Co. Chicago, Ill.

Farwell, Ozmun, Kirk & Co., St. Paul, Minn.

Farwell, Shapleigh & Co. St. Louis, Mo.

Price to Dealers, $2.00. Retail, $2.75.

To get them introduced will make 3 Sets for $6.00, F.O.B. at any station east of Missouri River. This offer is good for first order only. 25 10, 30 net if ordered at once direct from me.

Ask for Circulars and further Information.

J. T. SWAN, Auburn, NEB.

$3.00 SAVED

TO ALL POINTS EAST AND WEST VIA THE D&B LINE.

"Just Two Boats" BETWEEN DETROIT & BUFFALO

DETROIT & BUFFALO STEAMBOAT CO.

THE LAKE AND RAIL ROUTE
WORLD'S FAIR, ST. LOUIS
DAILY SERVICE, MAY 26th

Improved Express Service (14 hours) Between

DETROIT AND BUFFALO

Leave DETROIT Daily - 4.00 P. M.
Arrive BUFFALO " - 7.30 A. M.

Connecting with Earliest Trains for all Points in NEW YORK, PENNSYLVANIA and NEW ENGLAND STATES.

Leave BUFFALO Daily - 5.30 P. M.
Arrive DETROIT " - 7.30 A. M.

Connecting with Fast Express Trains for WORLD'S FAIR, ST. LOUIS and THE WEST, with D. & C. N. Co. for Mackinac Island and Northern Michigan Resorts.

Rate between Detroit and Buffalo $2.50 one way, $3.50 round trip. Berths $1.00, $1.50; Staterooms $2.50 each direction.

Send 2c Stamp World's Fair Illustrated Pamphlet. Send 2c Stamp Tourist Pamphlet Rates.

RAIL TICKETS HONORED ON STEAMERS

First-class, Second-class, Tourist Special, Conventions (World's Fair, St. Louis) reading via Grand Trunk Ry. or Michigan Central Ry. between BUFFALO and DETROIT will be accepted for Transportation on D. & B. Stms. { A. A. Schantz, G. S. & P. T. M., Detroit, Mich.

Swedish Side Cutting Plyers with Connectors.

Will cut the hardest kind of iron or steel wire with out injury to the cutting edges. Send for Green Book of Hardware Specialties.

UTICA DROP FORGE & TOOL CO. Mfrs. of Nippers and Plyers.
SMITH & HEMENWAY CO. Mfrs. of Cutlery and Hardware Specialties.
296 BROADWAY, NEW YORK CITY.

CRONK'S OREGON PATTERN PRUNING SHEARS.

The latest and best fully warranted.

THE CRONK & CARRIER MF'G CO., Elmira, N. Y., U. S. A.

Stay-In Flue Stoppers

Brass Finished, Nicely Decorated.

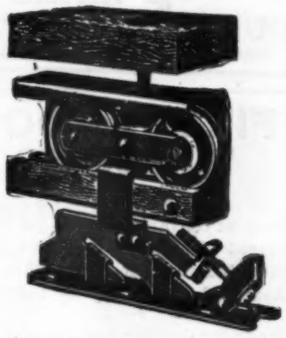
The best flue stop made. Sold with a positive guarantee to be absolutely soot proof. It cannot be jarred or blown from the flue hole.

You cannot afford to be without a flue stop that will stand the above guarantee.

Stuber & Kuck, Peoria, Ill.

Manufacturers of Pieced Tinware and all styles Flour Sifters.

RICHARDS AUTO



Ball-Bearing, Noiseless, House Door Hanger combines all the best features and is a trade winner.

We make all the leading styles of door hangers for sliding doors. Catalogue free.

THE RICHARDS MANUFACTURING CO.
AURORA, ILL., U. S. A.

8½ inches long. Jaws take from 1/16 to ¾. Cuts bolts for pump rods.

SPECIAL WRENCH FOR PUMP RODS.

Has more uses than any wrench made.

You can't break the jaws off this wrench.

Will Remove "NEVERSLIP" and "ROWE" CALKS
The Best Wrench Made

Every one buys HAWKEYE WRENCH on sight; all that's necessary to sell it is to show it. It should be in every Hardware Store. Be the FIRST in your town to have it in stock.

SOLD BY ALL JOBBERS.

HAWKEYE WRENCH CO., Mfrs., Marshalltown, Ia

Made in two styles—different size thread for Pump Rods.

The "PARAGON" CYLINDER WASHER

Whatever your prejudices may be against washers, you should try the Paragon. It does not partially cleanse the clothes, leaving them to be finished by hand, but does the work perfectly, dispensing with the washboard and hand-rubbing altogether.

Watson Bros. of Marinette, Wis., write:—"Kindly enter our order for one dozen Paragon Washers, to be shipped at once. Please hurry same forward without delay, as we have worked up a phenomenal sale on the Paragon since our first shipment last August, and desire to be in a position to fill orders promptly. It seems that as we place these machines, each individual sale makes for us many more in a very short time. We have been in business in this city for thirty-one years, and have never known what it was to control the washing machine trade until we got the Paragon established. We are very much pleased to note your up-to-date methods in placing the Paragon on the market, with the absolute assurance to both dealer and consumer that their interests will be protected."

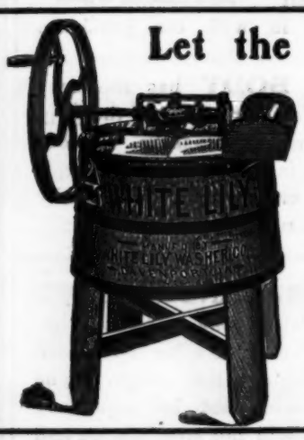
J. M. GAGAN & CO. Manufacturers
CHICAGO, U. S. A.

Pumps and Tubing
Send for Catalog

Galvanized STEEL CHAIN

Sanitary Pump & Tubing Co. Quincy, Illinois.

Let the WHITE LILY Do the Work.



Secure the AGENCY for the

White Lily Washing Machine

It is the Best Seller on the Market.

HIGH SPEED LIGHT RUNNING HANDSOME FINISH and GUARANTEED.

Only one dealer in each town can get them. Write for particulars.

WHITE LILY WASHER CO.
TOLEDO, Ohio, - DAVENPORT, Iowa.

"White Lily Washers wash lily white."

Peoria Washing Machines

Best in the Market—Made with Ball Bearings

Have a Compound Lever Handle which greatly reduces the work of wash days. The motion used in vibrating the handle takes the strain from the back and lets the arms do the work with a great reduction in labor.

Send for Catalogue. Secure the Agency.

CLARK, QUIEN & MORSE
PEORIA, ILL.

Have you ever considered the advantage of the

IMPROVED SCHROEDER ROTARY ROLLER GEARING WASHER?

No steam escapes, prevents disagreeable odors from permeating the house, keeps water hot longer, is light running, simple and durable. The most successful rotary washer on the market.

WORKS SO EASILY A CHILD CAN OPERATE IT.

We can tell you more if you want to know, it is to your interest as well as ours. Why not write us?

THE BENBOW-BRAMMER MFG. CO.
ST. LOUIS, MO.

Do You Know

That the **O. K. WASHING MACHINE** is the best made, the lightest running and the most attractive washer on the market? *Are you selling it? If not, why?* Every first-class dealer should sell it, because it is made of the best materials, by the best mechanics that can be obtained, and every one sold will sell another.

Write us for Circulars and Prices.

H. F. BRAMMER MFG. CO. Dept. B. DAVENPORT, IOWA

---

100 TINNERS' PATTERNS

COMPLETE FOR **$1.00**

Sent Postpaid on Receipt of Price.

DANIEL STERN,
69 Dearborn St. CHICAGO.

IMPROVED Oblique Tumbling Barrel

Barrel can be adjusted to run in any desired position, thus rattling the parts more or less violently to suit the material from which they are made.

Send for Catalogue A.

The Globe Machine & Stamping Co.
971 Hamilton St., Cleveland, O.

4 in. I-Rack Brackets

Makes Wagon Box, Hay, Hog and Wood Racks made from best malleable iron.

Farmers seeing these will have no others.

Over 30 Jobbers ve them, including

Hibbard, Spencer, Bartlett, & Co. Chicago, Ill.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Norvell, Shapleigh & Co. St. Louis, Mo.

Price to Dealers, $2.00. Retail, $2.75.

To get them introduced will make 3 Sets for $6.00, F.O.B. at any station east of Missouri River. This offer is good for first order only. 2% 10, 30 net if ordered at once direct from me.

Ask for Circulars and further Information.

J. T. SWAN, Auburn, NEB.

$3.00 SAVED

TO ALL POINTS EAST AND WEST VIA THE D&B LINE.

"Just Two Boats" BETWEEN DETROIT & BUFFALO

DETROIT & BUFFALO STEAMBOAT CO.

THE LAKE AND RAIL ROUTE
WORLD'S FAIR, ST. LOUIS
DAILY SERVICE, MAY 26th

Improved Express Service (14 hours) Between

DETROIT AND BUFFALO

Leave DETROIT Daily - 4.00 P. M.
Arrive BUFFALO " - 7.30 A. M.

Connecting with Earliest Trains for all Points in NEW YORK, PENNSYLVANIA and NEW ENGLAND STATES.

Leave BUFFALO Daily - 5.30 P. M.
Arrive DETROIT " - 7.30 A. M.

Connecting with Fast Express Trains for WORLD'S FAIR, ST. LOUIS and THE WEST, with D. & C. N. Co. for Mackinac Island and Northern Michigan Resorts.

Rate between Detroit and Buffalo $2.50 one way, $6.50 round trip. Berths $1.00, $1.50; Staterooms $2.50 each direction.

Send 2c Stamp World's Fair Illustrated Pamphlet. Send 2c Stamp Tourist Pamphlet Rates.

RAIL TICKETS HONORED ON STEAMERS

First-class, Second-class, Tourist Special, Conventions (World's Fair, St. Louis) reading via Grand Trunk Ry. or Michigan Central Ry. between BUFFALO and DETROIT will be accepted for Transportation on D. & B. Stms. { A. A. Schantz, G. S. & P. T. M., Detroit, Mich.

Swedish Side Cutting Plyers with Connectors.

Will cut the hardest kind of iron or steel wire with out injury to the cutting edges. Send for Green Book of Hardware Specialties.

UTICA DROP FORGE & TOOL CO. Mfrs. of Nippers and Plyers.
SMITH & HEMENWAY CO. Mfrs. of Cutlery and Hardware Specialties.
296 BROADWAY, NEW YORK CITY.

CRONK'S OREGON PATTERN PRUNING SHEARS.

The latest and best fully warranted,

THE CRONK & CARRIER MF'G CO., Elmira, N. Y., U. S. A.

Stay-In Flue Stoppers

Brass Finished, Nicely Decorated.

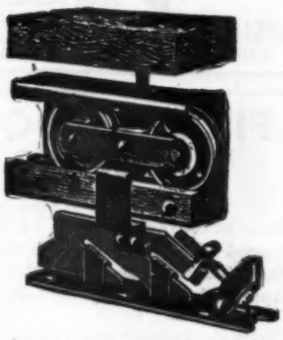
The best flue stop made. Sold with a positive guarantee to be absolutely soot proof. It cannot be jarred or blown from the flue hole.

You cannot afford to be without a flue stop that will stand the above guarantee.

Stuber & Kuck, Peoria, Ill.

Manufacturers of Pieced Tinware and all styles Flour Sifters.

RICHARDS AUTO



Ball-Bearing, Noiseless, House Door Hanger combines all the best features and is a trade winner.

We make all the leading styles of door hangers for sliding doors. Catalogue free.

THE RICHARDS MANUFACTURING CO.
AURORA, ILL., U. S. A.

8½ inches long. Jaws take from ⅛ to ⅞. Cuts bolts for pump rods.

SPECIAL WRENCH FOR PUMP RODS.

Has more uses than any wrench made.

You can't break the jaws off this wrench.

Will Remove "NEVERSLIP" and "ROWE" CALKS
The Best Wrench Made

Every one buys HAWKEYE WRENCH on sight; all that's necessary to sell it is to show it. It should be in every Hardware Store. Be the FIRST in your town to have it in stock.

SOLD BY ALL JOBBERS.

HAWKEYE WRENCH CO., Mfrs., Marshalltown, Ia

Made in two styles—different size thread for Pump Rods.

SOLID STEEL, DROP FORGED, MALL. D. or Plain Long Handle "ALASKA" SNOW SHOVELS.

Orders now being booked for Fall Delivery.
We will be glad to send you catalogue and price lists of our complete lines of Winter Goods, Cooking Utensils and Shovels, Spades and Scoops. We have something new in Shovels.

THE AVERY STAMPING CO., Cleveland, Ohio.

"The First and only makers of 'NEVER BREAK' Goods."

Measuring Tapes

Steel, Metallic, Linen, etc. Our Goods are Recognized as the Best. Tinners' Rules, Magic Pattern Rules, etc. Send for Catalogue and Mention The American Artisan.

Lufkin Rule Co.

SAGINAW, MICH.

STANLEY RULE AND LEVEL CO.
Improved Carpenters Tools
Sold by All Hardware Dealers. *NEW BRITAIN, CONN.*

"PULLMAN" Sash Balances

Are you selling them?
In use everywhere. Look for the Metal Tapes in all New Buildings.
Folder No. 2 sent free.

PULLMAN MFG. CO,
ROCHESTER N. Y., U. S. A.

FIRE - PROOF WINDOWS
(Patented)

Made of Galvanized Iron.
Glazed with Ribbed or Wire Glass.
Operate Automatically or Otherwise.
Approved universally by Insurance Companies.
Write for Catalog and Prices.

THE W. J. BURTON CO.
Detroit, Mich.

E. H. TITCHENER & CO.

Headquarters for
STAPLES AND THINGS.
Binghamton, N.Y.
and 42 N. Peoria St., CHICAGO.

HOES

Cotton and Field Hoes with Hercules Handle.

Street Cleaning Hoe with Heavy Ash Handle

Handled Grape Hoe

Planters Hoes, Scovil Pattern Hoes, Set Hoes, regular finish, or Lyndon style, oil finish.
The Original German Handled Hoes
German Handled Tobacco Hoes
Grub Hoes, Handled Grape Hoes
Rice Hoes, Hilling Hoes
Cotton and Field Hoes
Cotton Scraping Hoes
Giant Pattern Hoes
Street Cleaning Hoes
Steel Laid Hoes
Steel Laid Cotton Planters Hoes

Sandusky Tool Co., Sandusky, O.

FOX SHAVING SETS

Every article in this set is guaranteed. The razor is a Fox, which is known all over as the best made. It retails for $3.

FOX CUTLERY CO.
DUBUQUE, IOWA

The Highest Type of American Cutlery

IS EXEMPLIFIED IN

QUEEN SHEARS

FARWELL, OZMUN, KIRK & CO.,

Wholesale Distributers. ST. PAUL, MINN.

GOODRICH LINE STEAMERS

YOUR CHANCE FOR SUMMER ENJOYMENT

3 and 4 Days Lake Trip $13
Chicago to Menominee, Mich. & Ret.
Including Berth and Meals.

5 Days Lake Trip $20
Chicago to Mackinac Island & Ret.
Including Berth and Meals.

Muskegon or Grand Haven
And Return From Chicago, **$2.75**

MILWAUKEE
And Return From Chicago, **$1.50**

Write about it
R. C. DAVIS, G. P. A.
Chicago, Ill.

GOODRICH LINE STEAMERS

Rely on yourself—invest your money in YOUR OWN business—advertise.

THE LATEST IMPROVED CREAM SEPARATOR.

The best cooling process. The milk tank is detachable.
Our Separator is guaranteed to do the work.

The cheapest and best deep setting Separator on earth.

WRITE FOR PRICES.

SEITHER-CHERRY CO.
KEOKUK, IOWA.

THE KING
Cream Separator

separates all the cream. No cranks to turn, no crocks or pans to wash, no skimming to do, no water mixed with the milk. Highest points secured on butter, several thousand sold last year, all giving good satisfaction, price within the reach of all. Write for terms and prices. Mention this paper.

CHAS. A. VAN PELT,
Bloomington, Ill.

THE CLARK NOVELTY CO.
Rochester, N. Y., U. S. A.
Contractors and Manufacturers of

Metal Specialties

LIGHT MACHINERY,
SPECIAL TOOLS,
AIR COMPRESSORS,
SMALL BRASS PARTS,
PATTERNS, MODELS,
EXPERIMENTAL WORK, ETC.

The Manufacturing of **BRASS FAUCETS** of any size, style or description is one of our Specialties.

STAR HACK SAWS

They cost a trifle more at the start, but are ten times the cheapest in the end. We repeat that it requires something more than steel, teeth and holes to constitute a Hack Saw Blade. You cannot buy a good pocket knife for 10 cents, or the best Hack Saw Blades at price of inferior goods.

Prominent dealers the world over sell ★ Blades | Every genuine blade is stamped with a ★

MILLERS FALLS COMPANY, 28 Warren Street, NEW YORK, N. Y.

We Make Saws

But We Make Plenty of Other Goods Too.

SEE CATALOGUE FOR FULL LINE.

HENRY DISSTON & SONS Incorporated

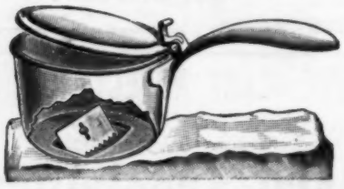
KEYSTONE SAW TOOL, STEEL AND FILE WORKS

PHILADELPHIA, PENNA.

STANDARD FOR QUALITY "ENTERPRISE"

ICE SHREDDERS

For Shaving Ice, Coarse or Fine.

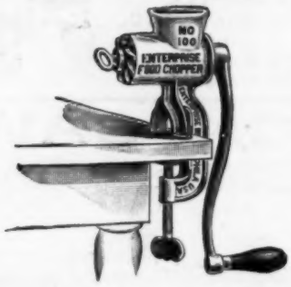


	Per Doz.
No. 33, Tinned, -	$6.00
No. 34, Nickeled, -	15.00

LAWN SPRINKLER

No. 1, - - $3.50

FOOD CHOPPERS



No. 100 - $1.50
No. 300 - 2.25

Rapid Grinding and Pulverizing Mills

45 Sizes and Styles for Hand, Steam and Electric Power.

No. 2, - $3.75

CHERRY STONERS

5 Sizes and Styles, Tinned or Japanned

No. 1, - $7.50 per Doz.

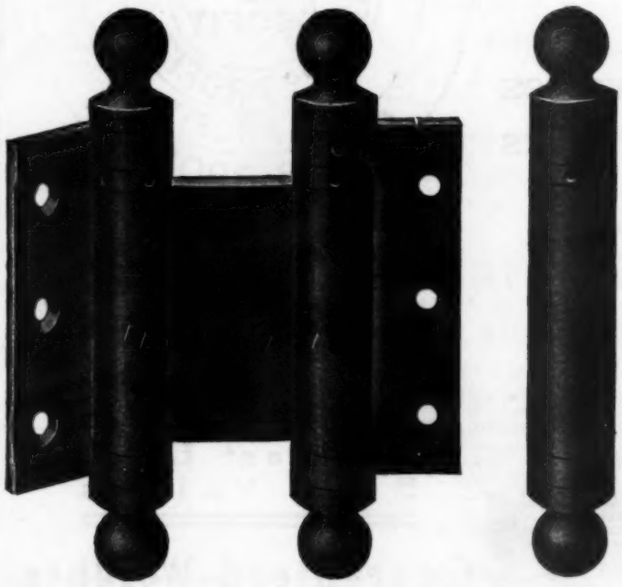
ORDER THROUGH YOUR JOBBER. CATALOGUE MAILED FREE.

THE ENTERPRISE MFG. CO. OF PA., PHILADELPHIA, U. S. A.

Introducing New Hardware

Attention is directed to illustrations and brief descriptions below of new lines we are just placing on the market.

Not how cheap, but how **GOOD,** has been our constant aim in the bringing out of these new goods, and our past reputation for producing only the best and highest standard of quality we believe will serve to bring our new lines into instant use and favor.



The New Columbian Spring Hinge

Made in Sheet Steel, Bronze and Brass
In all Finishes
Single and Double Acting

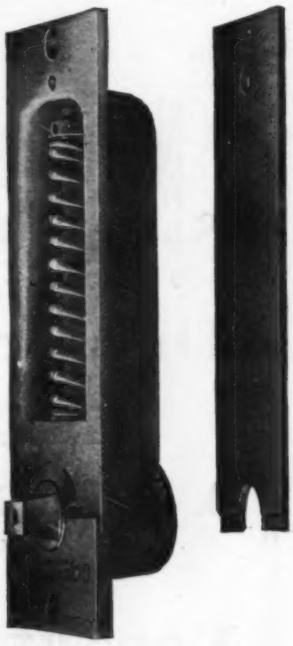
It is **noiseless** in its working, and will carry the door **longer** and **easier** than any other hinge, because of its

Extra Long Springs
Special Steel Bearings and
Construction of Its Center and Side Flanges

Most Perfect Floor Spring Made "THE COLUMBIAN"

It has features of construction and application not possessed by any other hinge:

Occupies small space in floor, *particularly in depth.*
Easily put in place.
Door may be removed in a moment's time.
Tension easily regulated without disturbing hinge or door.
Protected against dirt or moisture.



The Columbian Door Spring

With Stamped Steel Ends and High grade Spring Wire.

OTHER NEW LINES are rapidly being pushed to completion, announcement of which will appear in these columns later.

OUR COMPLETE LINE embraces various styles of Spring Hinges and Door Springs, Wire Coat and Hat Hooks, Door Pulls, Blacksmith's Vises, Machinists' Vises, Anvils, Steel Joist Hangers. Write for our new Hardware Catalogue. Ready August 1st.

THE COLUMBIAN HARDWARE COMPANY

CLEVELAND, OHIO

NEW YORK CITY, 14 Warren St. **SAN FRANCISCO, 132 Market St.** **CHICAGO, 27 Lake St.**

OUR WAY

Short-Cut Mill to Retail

OTHERS' WAY

Over 4500 Wide-Awakes Handle Our Blankets

FROM MILL DIRECT TO RETAILER.

Northern Ohio Wools "Are Always the Best"

FOR 1904

Greatest Lines
Best Values

Guaranteed Weights and Sizes

Fastest Colors
Newest Patterns

We make and sell **Wool Blankets—Not Calicos** or **Cattle Hairs.** While we make all qualities, we do make

The Only Good Cheap Blankets

25% More Profit can be added to **Northern Ohio Wools** than to others and still **Eliminate Competition.**

A Complete Line of Stables--Our Make

TAILOR MADE FIT BEST A1 EVERY WAY

SEND FOR CATALOGUE AND PRICES

NORTHERN OHIO BLANKET MILLS

LARGEST AND BEST EQUIPPED IN THE UNITED STATES

THE BECKMAN COMPANY : CLEVELAND, OHIO

SELLING AGENTS

F. M. LETTS
304 Cherry Street, Philadelphia

E. L. BOWLES
49 Warren Street, New York City

CHAS. G. JOHNSTON
281 Madison Street, Chicago

PATENT
GRANITE STEEL WARE
$ome hardware dealer$ write u$ for our catalogue$ out of curio$ity. $ome becau$e their Enameled $teelware and Tinware bu$ine$$ i$ $lack. Other$ for other reason$. Perhap$ these reaon become ea$ier to $ee a$ you read the$e line$. If you di$cover them of cour$e you'll $end for the catalogue$. Addre$$ our neare$t office.
National Enameling & Stamping Co.
MILWAUKEE CHICAGO NEW YORK
BALTIMORE ST. LOUIS
NEW ORLEANS
K 17

SEND THAT MAN
UP AGAIN QUICK
I'M SOLD OUT
LEE-GLASS-ANDREESEN
HARDWARE CO. OMAHA, NEB.

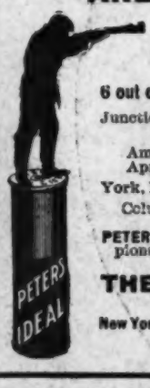
You Would be Surprised at our prices for **ROOFING TIN**

If you had an idea of the quality. The fact that we make all our own plates explains why we can furnish such material for the price. A postal will get you sample set "A."

THE McCLURE COMPANY
PITTSBURG PHILADELPHIA
MILLS: Washington, Pa.

PETERS LOADED SHELLS

ARE WINNING NEW LAURELS!



Some Recent Victories
Captured With Peters Shells:

6 out of 9 Missouri-Kansas Interstate Team Matches.

Junction City, Kans., May 3-6. — State Event at Live Birds. State Championship at Targets. 1st and 2nd Amateur Averages.

Americus, Ga., April 27 and 28. — 1st and 2nd Amateur Averages.

York, Pa., May 16-21. — 1st Amateur Average. Penn'a. State Championship.

Columbus, Neb., May 18. — 100-Target Gun Event, score 96.

PETERS CARTRIDGES have won the Indoor Rifle Championship of the United States seven successive years.
For sale by the leading jobbers.

THE PETERS CARTRIDGE CO.,
CINCINNATI, U. S. A.
New York 93 Chambers St., T. H. Keller, Mgr.
Hibbard, Spencer, Bartlett & Co., Chicago.
Pacific Hardware & Steel Co., San Francisco

FOR
METAL CEILINGS
write us. It will pay you.

ILLINOIS ROOFING & SUPPLY CO.
23 Lake St., CHICAGO.

Champion Stove Clay

The only Stove Lining made of crucible materials.
Packed in 2½ lb., 6 lb. and 10 lb. pasteboard boxes.
Order it from your jobber.
The best and most refractory lining made.

BRIDGEPORT CRUCIBLE CO.
BRIDGEPORT, CONN.

STEVENS

Rifle Telescopes

These telescopes may be fitted to any standard make of rifle, and combine all the desirable features that contribute toward the manufacture of a perfect product. STEVENS RIFLE TELESCOPES are widely popular, and because of their meritorious properties are constantly growing in favor.

Our scopes may be used for Target Shooting at rest, and also, for large and small game shooting in the roughest country. Prolong the sport of a veteran RIFLEMAN for many years; indispensable to Shooters with defective vision. STEVENS TELESCOPES are now admitted at many ranges, where formerly their use was prohibited. PRICES vary from our **"Favorite"** at **$8.00** to the **"Multiscope"** at **$42.00.**

We also manufacture **RIFLES, PISTOLS, SHOTGUNS.**

All Jobbers carry the famous STEVENS goods.

Special Telescope Catalog, describing and illustrating every model, mailed FREE on request. SEND FOR IT!

J. STEVENS ARMS & TOOL CO.
197 Main Street,
CHICOPEE FALLS, MASS., U. S. A.

BRADLEY SHELF BRACKETS
STRONG, LIGHT AND ALL RIGHT
ATLAS MFG. CO. NEW HAVEN, CT.

OSGOOD STANDARD SCALES
Ask your jobber about them.

The "Globe" Ventilator

In Brass, Copper, Galvanized Iron, and with Glass Tops for Skylight purposes.

For Perfectly Ventilating
Schools, Churches, Halls, Mills, Factories and Audience Rooms of Every Character.

Smoky Chimneys Cured.
"Globe" Ventilated Ridges.
Send for Pamphlet.
Manufactured by
Globe Ventilator Co., Troy, N. Y.

Advertisements never demand bigger salaries, never have ennui or hang-overs. They never get irritable and insult old customers. They are Johnnies-on-the Spot.

Put This Down as a Fact

ATKINS ALWAYS AHEAD

When a man insists on having **Atkins Saws,** you may know that he has used them before and knows what he's talking about. It's no use to offer something "just as good", because he'll have **Atkins Saws** if he has to go elsewhere to get them.

It's better to be on the safe side and have a line of **Atkins Saws** always in stock. They're good for your store.

Have you a copy of our 1904 Catalog? Free.

If It's Silver-Steel It's an ATKINS

E. C. ATKINS & CO.,
Indianapolis, Ind.

Branches
MEMPHIS, TENN.
ATLANTA, GA.
NEW YORK CITY
TORONTO, CANADA.
CHICAGO, ILL.
MINNEAPOLIS, MINN.
PORTLAND, OREGON.
SEATTLE, WASH.